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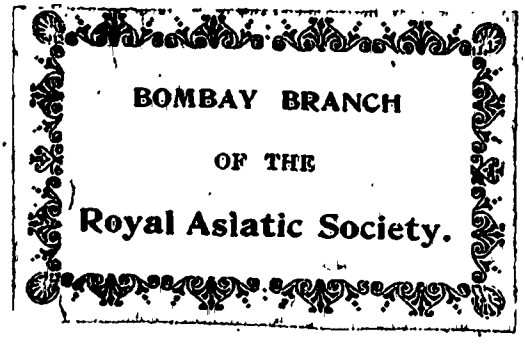

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JOURNAL

OF THE

INDIAN ECONOMIC SOCIETY.

THE JOURNAL.

Momentous problems of the highest economic importance loom large on the horizon. When the world is able to shake off the deadly monster of war that holds it in its terrible grip at the present moment, nations will find themselves face to face with a situation which will tax their energies to the utmost. Every one hopes that the peace which will come at the close of the devastating struggle will be of a permanent character, that it will usher in a totally new order of things and that war will be an ugly dream of the past which will no more haunt and distract the minds of the moulders of future civilization. Norman Angell thought and preached that modern organization of industry and trade had rendered wars unprofitable and therefore impossible. The present struggle has falsified the prophesy. One does not know what the future has in store for the world and whether it might not blight the world's fond hopes about the happiness of the times that are to come. The future is on the knees of the gods. What is almost certain is that the work of re-construction and readjustment that lies ahead, is going to be tremendously difficult and nations must prepare to face it.

The war has, for the time being, disorganized the world's economic and social order. Trade, industry, banking, and currency have all lost their moorings and they are kept going under the stress of the paramount necessities of the hour. The losses caused by the war, will have to be repaired and the burdens of the public debt will have to be borne. We do not expect that international competition will, in any way, have lost its keenness—if anything, we are afraid, it will grow keener still. While the spirit of the war is on them, nations do not appear to feel the strain to which they are subjected. But the process of recuperation will have to be long and painful and each

nation must strive its utmost to regain its strength and vigour as early as possible. Fortunately for the British Empire, this aspect of the future has attracted the attention of the Government and the people and they are taking timely steps to prepare the ground for the work of reconstruction.

Like other nations, India will have its own peculiar problems to solve. It cannot be said that we, in this country, have been sufficiently alive to the requirments of the situation as we ought to. While the war is going on, all energies must be bent upon the prosecution of the war to a speedy and successful issue. But this is also the time when the plans and programmes of reform and progress have to be thought out. There is an industrial Commission sitting which will issue its report in the course of the next few months, and everything will depend upon what recommendations it makes, and what is more important, what practical measures are taken to give effect to them. The experience of the past four years has demonstrated the economic possibilities of India. We have learnt, what required little demonstration, the immense economic value of the raw materials this country produces in abundance. We have learnt that Indian labour, if properly trained and organized, has vast possibilities of improvement in efficiency and productivity. We have learnt that India possesses capital which may be attracted into useful channels if suitable methods are adopted to tap it. We have learnt these things and something more, namely, that India's greatest need to-day is a well-thought-out constructive policy of industrial and economic development, boldly conceived and scrupulously carried out.

Though the country is richly endowed by nature, we in India, have not been able to avail ourselves of her gifts, and we have, on that account, been ranked with the backward peoples of the world. The time has now, however, come when the energies of the state and the people should be directed to the task of raising India to a higher level of existence. The poverty of the teeming millions of India has become proverbial and is a matter of reproach to us. Our standard of living is low and in the economic competition of the world, we have been driven to the wall. What was once said by Lord William Bentinck *viz.*,—"Look where you will and you find the same result—poverty, inferiority and degradation, in every shape", still holds good. All these matters will have immediately to be taken in hand and remedied. The problems of reconstruction which they involve will not be with-

out many and great difficulties. It is a delusion to suppose that they can be easily and speedily solved. But solved they must be, and the burden of their solution must fall primarily on the shoulders of Indians themselves. The amount of thought and care, which the children of the soil in daily active touch with the fast changing life of the country, are willing to bestow upon them, will be the measure of the success which they will deserve in their solution. The experiences of other countries can help them only to a limited extent. When an Indian pupil of an English Professor of world-wide repute, on the eve of his return to this country, went to seek his Professor's advice regarding the problems and needs of India, he was told **"no, no, my friend, we have no time to think for you. You must think out your own problems. No country's problems were solved by any other."** It was in the spirit of this sound and honest advice that the Indian Economic Society was started, and it was again in the spirit of the same advice that the idea of starting a journal of the Society was first mooted by some of its members. Self-help is the basic principle of life. All progress depends upon it and comes from within.

The object of this Journal will, therefore, be to strive to stimulate and focus the energies and thoughts of all those persons who are interested in the promotion of the economic advancement of the Indian people.It will try to discuss, from time to time, problems concerning the economic development of the country and to assist in the formation and dissemination of correct views on all economic questions. If it succeeds in this work in ever so small a degree, it will have justified its existence. We are conscious of the limitations that surround our task, and it is only the conviction, that the work is necessary and urgently needed, that has led us to put our hands to it. We have no fear but that with the co-operation and goodwill of all those interested in the economic welfare of India, we may hope to attain a reasonable measure of success. There are already in this field a goodly number of journals devoted to the self-same work, but we venture to hope that our readers will find that this Journal is not one too many. Bombay occupies a unique position in the matter of trade, industry and banking and it is not too much to expect that our work will be facilitated by the favourable surroundings that are to be found here. We seek the co-operation of all those who may be in a position to help us in whatever way they can.

THE INDIAN BUDGET FOR 1918–19.

Sir William Meyer's last budget was received with a chorus of praise throughout the country, though a discordant note was sounded here and there by people who thought that the Finance Member had pursued a policy of weakness, timidity, and hesitancy which accorded ill with India's responsibility to the Empire in the present war crisis. Popular satisfaction was due to the belief that Sir William had handled the financial situation with cool determination and marvellous skill in the face of the extraordinary strain which was being put upon the limited resources of the conntry. There is no doubt about the fact that the popularity of the budget for 1918–19 is in the main to be attributed to the absence of any fresh taxation proposals in the financial dispositions for the new year. Many people's test of financial skill is the Finance Member's ability to avoid the imposition of additional burdens on the shoulders of the tax-payers and they are not entirely wrong in thinking that the existing resources of the country should be used to the best advantage before a call is made for additional contributions. Imposition of fresh taxation was not entirely un-expected as the country was fully prepared to pay more, if it was absolutely necessary to do so, for the successful prosecution of the war. And we feel certain that Sir William would not have hesitated to levy more taxation if he had found it absolutely necessary.

But, as a matter of fact, the revised estimates for 1917–18 showed a surplus of about Rs. 12 crores, whereas the budget for that year had calculated that the revenue would just meet the expenditure. It was also expected that on the basis of existing taxation, the year 1918–19 would close with a surplus of Rs. 3 crores and more after providing for all necessary expenditure and calculating a reduction of about Rs. 3 crores in the revenue. What responsible Finance Member would, under these circumstances, have thought of additional taxation? It is not for the mere pleasure of having imposed fresh burdens upon the people or for making a brave show of sacrifice that fresh taxation is to be resorted to. Here is a budget which shows a handsome surplus after meeting all the needs of necessary expenditure and after making allowance for an anticipated reduction in revenue from certain sources, and there is the expectation, if not the certainty, that at the close of the year, the revenue estimate would prove an under-estimate.

Sir William Meyer has never grudged the demands of the army as the Viceroy testified on the closing day of the recent session of the Supreme Legislative Council. The net expenditure on the military services has increased from Rs. 30½ crores to Rs. Rs. 43½ crores during the last four years and the total revenue has gone up during that period by about 34 crores of rupees. Railway profits are largely responsible for this expansion of revenue, but the income tax, excise, customs and other taxes have also made substancial contributions. A Finance Member, who presents such a satisfactory budget, deserves to be congratulated no less than the people who have not had their burden increased.

The very fact, however, that no additional taxation has been levied for 1918-19, has been made the ground of loud complaint by some and Sir William Meyer has been severely taken to task for an exhibition of weakness, shortsightedness and a lack of sufficient Imperial patriotism, that he is alleged to have shown. The main count of the grumblers' indictment is that India has not done a tithe of what she ought to have done by way of war taxation and war loans, and Sir William is pilloried for having pursued a wrong policy from the beginning. The Finance Member's firmness in resisting the clamour of his critics is represented as his weakness and his delay in coming out with proposals of additional taxation is condemned as timidity. For ourselves, we think that these charges are as uncharitable as they are undeserved. And our sympathy goes out to Sir William who handled a delicate and complex situation with courage, dexterity and patriotism. Critics, who are loud and persistent in their warnings to Government against countenancing the claims of Indian leaders for constitutional advancement on the ground of the ignorance, poverty and political unfitness of the mass of the people, have no hesitation in recommending to the State a course of action which is really calculated to land it in difficulties of a serious character! They never stop to consider how fresh taxation will be taken and felt by the mass of the population and what effect war loans may produce upon it. Sir William was perfectly right in proceeding cautiously in the matter of taxation and loans and in remarking that "the best way that India can render further help, is to be prosperous and contented internally." If " hasten slowly " is a wise motto for political advancement, it is more appropriate in connection with the taxation of a population which is admittedly poor, ignorant and backward.

Poor and ignorant as the bulk of the Indian people are, they understand the importance of assisting the Imperial Government in the difficult situation in which it is placed and are prepared to make all possible sacrifices for winning the war. Men, material and money have not thus been grudged by India and she has been doing what she could to help the Empire. The heavy disbursements which the Government of India is being called upon to make on behalf of His Majesty's Government, have caused an amount of financial embarrassment and it is in providing for those disbursements and in supplying the materials which are required for the prosecution of the war that India has been rendering signal services. What would the proceeds of additional taxation have, after all, amounted to ? A paltry sum, in view of the increases which have taken place in Indian revenues as a result of additional burdens imposed two years ago. Wealthy people loudly complain if they are taxed, enhancement of customs duties is opposed by certain interests here and in England and the limits of taxation of the poor have been reached. The way in which the fourth clause of the Income Tax Bill was recently resisted, is significant in this connection. To speak of fresh taxation and of India's responsibility in shouldering larger military expenditure, under these circumstances, betrays a lamentable lack of insight into the condition of the people in this country.

In considering the imposition of fresh taxation, the resultant advantages have to be balanced against the probable disadvantages of the measure. Had Government decided to undertake a heavier responsibility in connection with military expenditure, the assistance to the Empire would not have been appreciable, while the difficulties involved in raising additional revenue would have been enormous. Restrictions of various kinds have been already imposed upon trade and industries and they have been cheerfully borne by the people. A few merchants and manufacturers have indeed secured large profits from the conditions created by the war and no one would object to those profits being heavily taxed. The progressive income tax and the supertax have already been levied, but the mass of the population cannot be expected to bear any heavier burdens. The smallest contribution made to meet the Empire's war expenditure would undoubtedly be welcomed; but we do not believe that His Majesty's Government expects India to contribute more or thinks that she is not doing her utmost.

We have thus disposed of the charge that the budget for 1918-19 is defective because it does not provide for fresh taxation or heavier war expenditure. The criticism of Sir William's policy with regard to public loans, is less unreasonable. It is contended that big war loans should have been floated with a view to drawing from the country the currency with which it was being saturated. The greatest difficulty, the Government had to face, was in connection with its Ways and Means programme rather than its current expenditure. How to find the funds, required to meet huge disbursements which had to be made on behalf of His Majesty's Government, was a problem which must have really taxed the Finance Member's abilities. It is stated that the problem would have been easily solved if loans had been floated in time and money had been attracted to the Government treasuries to fill up the void created by war outlay. Large masses of rupees and notes have been unloaded into the money market and they have proved inadequate, while they must certainly have contributed their share in pushing up prices. In this matter the Finance Member went upon the experience of the past. He did not expect to get much more than £ 10 million for the first war loan, and would have felt thankful for any excess over that amount.

The response of the people was surprising in the matter of the war loan, because the country's contribution exceeded all sanguine expectations of the most enthusiastic. The lesson has been taken to heart and the loan of this year will have no limits, while the experiment of the Treasury Bills will be continued. Merchants and manufacturers in some parts of the country are bursting with money at the present moment and there is a large amount of loanable capital in the country. Government has also taken powers to restrict the issues of capital for industrial purposes and to invest a large portion of the Paper Currency Reserve in London. India has already paid off about a third of her gift of £ 100 million, to Great Britain and has invested £ 20 million as a reserve of capital. The Gold Standard Reserve Fund amounting to about £ 34 million is in London and Rs. 54 crores of the Paper Currency Reserve will soon have been invested in British Treasury Bills and other securities. Besides the Rs. 50 crores of the war gift, Rs. 135 crores have thus been transferred from this country to London and invested there. We heartily endorse the criticism that it is better to replenish Government treasuries with proceeds of loans rather than with the issues of fresh rupees and notes. But it must not be forgotten that if the Finance Member did not

adopt this policy in 1915 and 1916, it was because he could not reasonably expect to get out of loans anything like what was required. It was the outlay by the Government of huge funds for war purposes that put loanable capital into the hands of merchants and manufacturers, and war loans could be productive only in the third and fourth year of the war. Then again, the enormous outlay in this country could not have been anticipated and we must give due credit to the Finance Member for having adjusted his policy to the requirements of the changing situation.

We emphatically deprecate the persistent efforts which are being made in certain quarters to belittle the assistance India is rendering in the prosecution of the war. Certain critics have spared neither the Government of India nor the people, for their alleged lack of Imperial patriotism and earnestness ; and we take the liberty to point out that these virtues do not lie in making indiscriminate attacks upon people who are striving hard to face a difficult situation. The Government of India is loyally and zealously co-operating with the Imperial Government and is placing at its disposal all the resources of this country. To expect it to do what is being done in Great Britain, is to ask it to work miracles and to forget that India is a poor country and that its population is ignorant and backward.

V. G. KALE.

THE VILLAGE IN THE MELTING POT.

One of the first fruits of the detailed inquiry into the social and economic conditions of the Indian villages, which is now a prominent activity of Indian economists, is that attention has been concentrated on the question of excessive sub-division and fragmentation of agricultural holdings. Sub-division is regarded as excessive when the holdings become so small that the holder is unable to support himself and his family and pay the *kist* out of the produce. By fragmentation is meant the arrangement whereby holdings, whether large or small, instead of being compact, consist of scattered strips distributed over larger or smaller parts of the village area. That these evils are to be found in almost all parts of India is a matter of common knowledge, but very varied views are held with regard to what remedial measures are possible or advisable. Readers of this journal are of course familiar with the Hon'ble Mr. G. F. Keatinge's bill, and with

the Baroda Commission and its recommendations; and also with the fact that this problem was the chief subject of discussion at the Agricultural Conference held last December in Poona. Mr. Keatinge and the Baroda Commission proposed to deal with the problem by modifying the action of the laws and customs of inheritance. At the Poona Conference much more drastic action was recommended by Professor H. Stanley Jevons of Allahabad. His proposals were remitted to the provincial governments for their consideration and comments. They may become the basis of important legislative projects.

Professor Jevons' proposal may be described as the application to India of the principles of the English Enclosure Acts. If I rightly understand him he would have Commissioners appointed who, with the consent of the majority of the zemindars or pattadars in a particular village, would value all the holdings and throw them into one, and then re-divide the whole so that each holder should receive land in the same proportion, calculated on value, as before, but have it all in one compact rectangular block. At the same time definite roads and paths would be laid out, and there would be a replanning of water channels so as to secure the best and most economical use of the water available; in fact throwing the village into the melting pot, and drawing it out fashioned anew. This measure in itself would not deal with the excessive sub-division of holdings, but only with fragmentation; but apparently Mr. Jevons' view is that at the same time a consolidation of holdings might take place in such a way as to reduce any excessive number of very small holdings.

I do not propose here to enter into any detailed criticism of this proposal. I only wish to suggest that if it is to be seriously considered it becomes very advisable that careful study should be given to the history of Enclosure in England. The chief avowed objects of the English Enclosure Acts were (1) to get rid of an intermixture of holdings similar to the condition which has been termed fragmentation in India, and (2) to extinguish the rights of intercommon and to provide for the fencing of individual holdings. But whether it were one of their objects or not, another of the chief effects of the Enclosure Acts was, generally speaking, a very great diminution in the number of small holdings and a considerable consolidation both of properties and tenancies. In many ways great agricultural advantages were secured. It became possible to cultivate a given area of land by the help of a smaller quantity of labour; and if the actual cultivators did

not benefit very largely, some as a matter of fact being ruined while others became enriched, at any rate the land-owning class, who during the enclosure period monopolised political power, gained an enormous increase of rents. At least during the Napoleonic war, the labour which was liberated from its attachment to the soil became available for recruiting the armies and for swelling the number of operatives in the rising textile factories. The introduction of new crops was facilitated by the opportunity given to individual occupiers to break away from the customary methods of cultivation. But by far the most important agricultural advantage from the change was the stimulus given to the improvement of the breeds of cattle, sheep, and horses.

At the same time these advantages were not purchased without a corresponding price being paid for them. The small owners and occupiers whose labour became superfluous in their native villages when they emigrated into towns carried with them an intense bitterness against the ruling classes. Although in course of time the grievance of enclosure has become a very vague memory among the working classes, and their ideas as to what enclosure means are entirely vague and inaccurate, yet the general attitude of resentment, and the belief that the owners of property are always endeavouring to oppress the working classes, have by no means died out. The historical importance of the enclosure movement in creating social animosities and the permanence of this effect, are matters which English historians have scarcely begun to investigate, but which are nevertheless very serious. The manner in which enclosure was viewed by the various classes at the time when it was proceeding with very great rapidity was well described in a pamphlet published in 1772 :— "The land-owner, seeing the great increase of rents made by his neighbour, conceives a desire of following his example ; the village is alarmed ; the great farmer dreads an increase of rent, being constrained to a system of agriculture which neither his experience nor his inclination tempts him into ; the small farmer, that his farm will be taken from him and consolidated with the larger ; the cottager not only expects to lose his commons, but the inheritable consequence of the diminution of labour, being obliged to quit his cottage in search of work ; the inhabitants of the larger towns, the scarcity of provisions; and the Kingdom in general, the loss of inhabitants." We have further to note the fact that however honestly and carefully the redistribution of holdings was made, it very seldom gave satisfaction at the time to the people whose holdings were redistributed. Whe-

ther it would be wise for the Government to face the widespread discontent which would almost certainly result in India from any imitation of the enclosure policy, is a question which will demand very careful consideration.

Meanwhile I should particularly draw attention to the condition of one part of England, namely the Isle of Axholme, which refused to allow its ancient customs, or the excessive sub-division and fragmentation of holdings which is characteristic of that district, to be put an end to by an Enclosure Act. The issue was fought out towards the end of the eighteenth century, and I received a most vivid description of the manner in which the controversy was carried on from the lips of a very old gentleman of Epworth, the largest village on the Isle. By what the celebrated agricultural writer Arthur Young termed "a barbarous omission" the proposal to enclose was defeated, and, to this day, land holdings and agriculture remain much the same as they were at that time. The holdings are very small; in fact at the time I made my enquiries the average size was even less than it had been in the eighteenth century. Each holding consists of a number of long narrow scattered strips of land. In Arthur Young's phrase there is no agricultural proportion; a man may have a plough and two horses, and only one-tenth of the amount of land necessary to occupy a plough fully; while another may have two or three times as much land, but no plough and no horses. The peasants are greatly encumbered by debt; the creditors are frequently lawyers, and the Isle of Axholme has been dubbed the "Paradise of lawyers." We have here a glaring instance of many of the evils which are complained of in Indian ryotwari villages. But the extraordinary fact is that instead of land being less productive in Axholme than elsewhere the reverse is the case. It is far better cultivated than almost any land to be found in the farming districts of England, and the crops are extraordinarily heavy, and the labourers who work upon the land are far more prosperous than most agricultural labourers elsewhere. The difficulties of the small holdings and their scattered nature are overcome by the practice of co-operation. The man who has horses lends them to his neighbour who has not, and is paid according to mutual convenience in human labour. When the young labourer marries he ordinarily goes to a lawyer and arranges to buy a strip of land of half an acre or so with borrowed money lent upon the security of the purchased land. As his family increases he adds to his debts and to his possessions. But all the time he is paying off his loans by instal-

ments. In a very considerable number of cases when he has accumulated some 20 acres of land he sells off the whole in twenty or more separate parcels, which are bought up by younger men, and with the capital realised takes a farm of 200 or 300 acres as a tenant in the enclosed districts.

In the Isle of Axholme there is therefore an open career for agricultural talent offered to every reasonably competent agricultural labourer. This is reflected in the character and bearing of the people, who carry themselves an air of independence and self-respect which is very different from the crushed attitude of the ordinary labourer in most purely agricultural districts of England.

English experience appears to me to suggest at least the possibility that whatever agricultural advantages might arise from the application to India of a policy of the "village in the melting pot", such advantages might be dearly purchased at the expense of much social and political bitterness; that the gross produce of the soil would very likely be diminished rather than increased, though the net produce were very largely increased; that it might result in sweeping away from the villages great numbers of peasants, at present utterly unprepared for urban life, and not yet in adequate demand for the undeveloped urban industries. English experience, in comparison with that of continental countries which have endeavoured to cope with similar problems by different methods, appears to me to suggest that the possibilities of the other line of policy available, namely the development of elementary and agricultural education, have as yet been by no means completely exhausted. While the economic progress of India, in view of the steadily increasing population, may demand an increase in urban industries, a partial commercialising of Indian agriculture, and a flow of labour from villages to towns, yet, for the sake of both town and country, one may well hope that the exodus will take place by the peasant being attracted into the towns, and not by his being driven from the villages. In England Enclosure created the latter force.

GILBERT SLATER.

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THE ORGANISATION OF RESEARCH IN INDIA.

The value of scientific guidance in manufacturing operations is a business proposition and more. Science is exact knowledge based on growing and accumulated experience. Industry is the production of commodities for the satisfaction of human wants. That production is most economic which entails the least cost, least waste, and a maximum result. The application of science to industry reduces cost, prevents waste and ensures the best quality of product for the outlay. Science grows continually with the acquisition of new knowledge. The application of that knowledge to industrial pursuits is, therefore, a question not only of private gain but of public utility. It is a question of the most efficient utilisation of the material resources of a country. Modern industry is nothing without the application of such knowledge to raw-material. Empiricism, rule of thumb, and conservatism, are beginning to count for less and less with the advance of scientific knowledge.

The average businessman has neither the time nor the ability to occupy himself with the one and many scientific problems that every industry involves almost at every stage. He is a specialist in business methods. In actual processes of manufacture, he must invoke the assistance of the technical and scientific man if he is to succeed at all. It is necessary, therefore, for every country that aspires towards industrial development to train and organise the requisite staff of scientific investigators, and provide adequate facilities for their training and work. We, in this country, have so far relied on imported skill. But, after the war, the countries, from which we have hitherto imported and which have been depleted of a large stock of their skill, will require all their own. After the war, industrial competition too, will be keener than ever. There will be a rush for markets to make up for the enormous wear and tear that the war will have involved. If, to be forewarned is to be forearmed, to be forearmed is to survive. The employment of science in industry is no longer an expensive luxury, but is becoming more and more a vital necessity.

Scientific research is of two kinds. It may be research in pure science and it may be research in applied science. Industrial research is scientific investigation bearing directly on industry, which, research in pure science is not. But it does not necessarily follow that a discovery in pure science may not often find application in industry.

Progress in it may directly influence industry sooner or later. Both pure research and applied research aim at increasing knowledge, which increases the efficiency of those who possess and utilise it.

It is the business of the businessman not to wait for chance discoveries, but invoke the co-operation of a scientific staff provided with well-equipped laboratories, who will studiously apply themselves to investigating industrial problems. It is his interest to have manufacturing troubles eliminated. It is his interest again to have the methods of production improved and cheapened. This involves a scientific examination of his raw material and its treatment; the control of processes by scientific tests; the initiation of improvements; the alertness to match any article; the economic utilisation of waste; and such other factors. This is the sort of work that a manufacturing concern must do for itself, routine work it may be called, but it will yield most efficient and economic production. The business man has to remember that industrial conditions have changed, and that the start, gained by those who do pioneer work, gives them important advantages. Industry is more highly organised now than it ever was. Manufacture is more specialised; and there is less opportunity for his ordinary and everyday staff to acquire new knowledge. The immediate gain from the application of scientific methods may be private, but the application of such methods is also of public benefit. One has only to note the number of new uses to which electricity, for instance, is applied everyday in the interest of public convenience and public utility. Any research for the improvement or cheapening of comodities must have public support, since it benefits the manufacturer, the artisan, the consumer, and thus the country as a whole.

Our manufacturers little realise as yet how much a man, possessing scientific knowledge, can do for them. Modern industry is after all the outcome of science. Chemical industries, for instance, have all their birth in the laboratory. It is science which has developed the manufacture of hundreds of important commodities from a single substance like coal; and in all industries all processes are more or less entirely based on scientific knowledge. The need, therefore, of developing in this country, the study of science and its application to industrial research, not only in the industries already existing, but in the larger field of experimentation on the tremendous resources which are still untapped, is obvious.

It might not be uninteresting in this connection to learn from the experience of other countries. The industrial success of Germany has been very largely due to the fact that everything was manufactured there under the direction of trained scientists. It is said that in one dye works alone a hundred and fifty chemists were employed before the war.

Much can be learnt from the experience of America and its research organisation. The Eastman Kodak Co., for instance, spend every year £ 30,000 on the maintenance of their laboratories, an amount which comes to less than 1% of their annual profits. Several other large manufacturers spend between £ 10,000 and 100,000 on the maintenance of their laboratories. These laboratories are also provided with facilities for pure research. They have facilities likewise for experimenting on the results of their investigations on a commercial scale. Financiers very often use them to ascertain the possibilities of the new products. Even though the expenditure on them may not produce immediate gains, a single discovery may outweigh all outlay on fruitless investigations, and thus recoup all costs. But more than this, the employment of scientific methods inspires public confidence in the output of such concerns.

Many associations of manufacturers have their own laboratories for investigating into common problems.

The Universities and colleges do perhaps the greatest amount of pure science research. Graduates' theses are a feature of this work; while there is also a staff for research for private firms.

In addition to these institutions, there are special research institutes like the Mellon Institute at Pittsburg, in which manufacturers endow fellowships and to which they submit their research problems. After the solution of such problems, they are able to secure the services of their fellows in their own industrial works. The Carnegie Institute has an endowment of £ 4,500,000 devoted to "the application of knowledge for the improvement of mankind". The scientific departments of state have all their own laboratories or experimental stations.

Then there are special commercial Research Laboratories whose work aims at the reduction of costs, the utilisation of bye-products, and the dissemination of information regarding them. The various Scientific Societies also assist in publishing results.

The activities of these institutions for research are co-ordinated with a view to prevent over-lapping. The National Research Council is in fact an attempt at nationalising research in industry. It gives the fullest publicity to investigations and results ; gives grants for pursuing the same ; and encourages a healthy and fruitful co-operation between industries and such institutions.

In England too the feeling of contentment and security in existing methods, so characteristic of English conservatism, is beginning to vanish. In July 1915 by an Order in Council a Committee of the Privy Council was appointed to direct the application of money provided by the State for the organisation and development of scientific research. An Advisory Council was also formed for the purpose of instituting specific researches, for establishing or developing special institutions, or departments of existing institutions, for the scientific study of problems affecting particular industries and trade; for the establishment of research studentships and fellowships; and for preventing overlapping in research activities. Parliament subsequently placed a sum of £1,000,000 at the disposal of a specially created Department of Scientific and Industrial Research—(a sum, about an eighth part of the Government of India's surplus for this year). It was announced that the principle on which grants would be made by the Committee would be that discoveries made by institutions, associations, bodies or individuals in the course of research aided by public money would be made available under proper conditions for public advantage. A White paper issued by the Government on the subject of the scheme (CD. 8005) states :—

"There is a strong consensus of opinion among persons engaged "both in Science and Industry that a special need exists at the present "time for new machinery and for additional state assistance, in order "to promote and organise scientific research with a view especially to "its application to trade and industry. It is well known that many "of our industries have since the outbreak of war suffered through our "inability to produce at home certain articles and materials required "in trade processes, the manufacture of which has become localised "abroad and particularly in Germany, because Science has there been "more throughly and efficiently applied to the solution of scientific "problems bearing on trade and industry and to the elaboration of "economical and improved processes of manufacture. It is "impossible to contemplete without considerable apprehension the

"situation which will arise at the end of the war unless our scientific "resources have previously been enlarged and organised to meet it. "It appears incontrovertible that if we are to advance or even main- "tain our industrial position we must as a nation aim at such a deve- "lopment of scientific and industrial research as will place us in a "position to expand and strengthen our industries and to compete "successfully with the most highly organised of our rivals. The diffi- "culties of advancing on these lines during the war are obvious and "are not under-estimated; but we cannot improvise an effective "system at the moment when hostilities cease, and unless during the "present period we are able to make a substantial advance we shall "certainly be unable to do what is necessary in the equally difficult "period of reconstruction which will follow the war."

The Advisory Council works largely through sub-committees reinforced by suitable experts in the particular branch of science or industry concerned, together with persons actually engaged in them. Various aided researches have already been undertaken at the instance of the Council. The point to note is that the British Government have seriously taken in hand the subject of Industrial research as a vital preparation for after-war work.

What is the present position of research in India? There is the Agricultural Research Institute at Pusa, and the Forest Research Institute at Dehra Dun, both doing good work as far as their strengths permit. The Geological Survey, perhaps the most efficient of all scientific departments, has its own Museum at Calcutta. The Zoological Survey consists of 4 Zoologists. Then there is the Botanical Survey. Madras and Bengal are the only provinces that have a Fisheries Department. There are in addition a number of Imperial or Local experts such as the Imperial Cotton and Silk Experts; the imperial Entomologist, Meteorologist, Mycologist, Quinologist, the Cellulose, Sugar-cane, Fibre, Tanning and Dyeing Experts; the Indigo Research Chemist, and several others of various descriptions and various grades. But all these scientific officers of the Government pursue their own investigations in their own way, without any co-ordination. These semi-independent Rajas reign in their own territories under no direction, and under little control. The officers of one province have little opportunities of knowing what is going on in another. One among them may be pursuing exactly the same investigation as some one else in another province, since there exists

no efficient organization for the interchange of experience. Even the Science Congress is a feeble and a belated effort in this direction. The result is that each province tries to work out its own problems in its own way, while the poorer provinces who cannot afford to have scientific officers make no attempt at all. It is impossible for any substantial results to be obtained by such scattered and independent investigations. Absence of system, want of combined effort, isolation of workers, are characteristic of our present scientific organization. Such groups of heterogeneous workers as there are, only involve duplication of men and material, waste of money and dissipation of energy.

Some of the colleges in this country do a certain amount of research work. But in the case of Government colleges this can hardly be undertaken. A professor of Chemistry in a Government college is in some respects in a most incongruous position. To a certain extent he is a misfit, the right man in the wrong place. His prospects do not lie in the direction of scientific work. For, he can not hope to rise to the position of a Director of Public Instruction,—the only goal possible to him (while, if he is an Indian, he may not hope at all)—unless he sacrifices his calling and capacity and seeks the cheaper knack of administrative efficiency. No more flagrant prostitution of ability can be imagined than under such conditions.

For some years past, the Government of India have been awarding technical scholarships to enable holders to prosecute scientific studies abroad. These scholarships are given to raw youths who, in most cases, possess not even an elementary experience in the subjects they intend " to take up ". Apart from the inadequate sum awarded, the scholarship is generally tenable for two years, a period insufficient, even for the students of the country to which they go, to learn the technique of an industry. No facilities are secured for them, even if these students happen to study in England, to obtain some experience in actual operations or processes of manufacture. The Stores Department of the India Office purchases in ordinary years in England stores to the value of over two million pounds sterling for Government requirements in this country, without the India Office making such purchases from British firms conditional upon their taking up one Indian apprentice at least. After desultory studies, the scholar, who has now blossomed into an " expert ", returns to India, and is conveniently lost sight of by Government, who have by this time done enough for him. More often than not, he fails, either because the

industry he has "learnt" does not exist in the country, or because he has had little actual Works experience. The unfortunate scholar drifts. And a leather expert sinks into a college chair, or becomes a Works Chemist; a textile "scholar" develops into an agent for mill stores; a sericulturist turns a school teacher; or a minerologist joins the Bar.

The Tata Research Institute at Bangalore—thanks to the munificence of a far-sighted patriot—is the only research institute well-equipped, as far as it goes, for research both in pure science and in applied science, though its work is mainly confined to the latter. The original annual endowment of Rs. 1,25,000 is supplemented by an annual grant of Rs. 50,000 by the Government of Mysore, and a sum equivalent to half the income from these two sources is added by the Government of India,—a position which naturally involves *mixed control*. The researches so far undertaken at the Institute have produced valuable results, as in the case of sandalwood oil, for the Government of Mysore, and acetone, for the Government of India. But it is doubtful if the present practice of allowing the staff of the Institute to engage in private practice has helped the objects of the founder, namely, research and training in the methods of research. The Institute has, however, sufficiently demonstrated the success attending experimentation on our raw materials, and the importance of doing that work in our own country.

Any suggestion as to the lines on which scientific research could be reorganized and developed in this country involves a consideration of the position of (1) the Educational Institutions, (2) the Manufacturers, (3) Research Institutions, and (4) the Scientific Services of Government.

The problem of training men for industrial careers is bound up with our educational policy. To some extent this was foreseen by Lord Curzon when he summoned at Simla an Educational Conference in 1901. The product of our Universities has still too long been the Government clerk. The old educational policy was based from the very outset with a single eye to providing for the administrative needs of the country. And the resulting overcrowding in the literary professions has been deplorable, and has proved a curse. That policy has still to be changed, and a bolder one inaugurated, one that will relieve this painful congestion in already overcrowded professions. A

beginning has to be made at schools in which a technical and scientific bias must be instilled in yet unformed minds. The colleges are, after all, the institutions for providing that preliminary training which is required for scientific careers. For, a large staff of research workers can be recruited only from them. Some sort of facilities do exist in them for such training. But adequate provision has yet to be made. The curriculum too requires strengthening in various directions, and needs linking up with an increased science teaching in the schools. Our Examining Bodies, otherwise known as Universities, have as yet to appreciate their responsibilities in the matter. Every University, worth the name, must have a well-equipped laboratory and a competent science staff. The best man in a subject can be secured by a University, but not by different colleges individually,—not to speak of the multiplication of small laboratories and small scientific libraries under existing conditions. In the teaching of science one well-equipped laboratory, and a good staff of even five, counts for more than 10 smaller laboratories each with a tolerable staff of one or two, exceptions excluded. In short, our Universities must reorganize the teaching of science, and cease to be merely Examining Bodies, if they are to provide at all the large staff of research workers that will be required for the industries of the future. They need not, moreover, all run the same way. With the development of industries each part of India will have its own educational needs. Bombay, for instance, could specialise more in textile technology and electrical engineering; Calcutta more in engineering and metallurgy; the Punjab more in Agricultural sciences; Madras perhaps more in mixed and general subjects; and Allahabad, say, more in Arts. They must also recognise for admission into the colleges affiliated to them, technical schools, some of the students from which might wish to pursue higher studies in science, just as they themselves would be the recruiting grounds for the Works laboratory or a research institute. It need not be emphasized that colleges and universities are the best means of educating young men for industrial employments. They are the best means for providing the skilled labour of the future. And as such, they must encourage graduates to pursue research work, if necessary, under the direction of a special staff, since there is an inevitable conflict between the relative claims of teaching and research if combined in the same persons. The Departments of Industries should keep in touch with the scientific work of the Universities, and keep the latter in touch with industrial requirements. The research workers, that the universities might train, need not all possess excep-

tional attainments. We want indeed an army of them. And what is wanted most is competent direction, and direction of their efforts in productive channels.

It is hardly possible for all but the largest manufacturing concerns to have their own laboratories and scientific staff. There would be much overlapping in investigation, even if such a course was attempted. But associations of manufacturers could pool for common benefit, and have common laboratories and staff for working on their common problems. Some of the big manufacturers could also join hands with the Universities to their mutual advantage. They could endow research fellowships, and submit problems for investigation. Later they could secure the services of the research fellow. The selection of such fellows would no doubt depend on the nature of the investigations to be undertaken.

If it is granted that research work on our own material can and ought to be done in India, where local conditions could be studied on the spot, instead of getting such work done abroad, then it is high time that we begin seriously to develop institutions for the purpose. It is better in this connection, and more profitable, to have one good central research institute than to have a number of scattered ones all over the country. The Tata Research Institute at Bangalore could very well be developed into one such, specially for applied chemistry and electricity, two of the most important subjects in scientific investigations. For, the efficiency of well-organized research institute increases with its staff. It is better to have one central institute with a staff of 100 than to have five scattered ones, each with a staff of 20. The cost of upkeep is relatively less. It saves duplication. It gives some of the benefits of a larger corporate life. It renders the collection and the co-ordination of scientific information, and the interchange of experience, possible. It could issue bulletins. It could also undertake research in pure science. And it could possess means for experimenting commercially on results arrived at, and of demonstrating the same. A good deal of money has already been spent on it, and it would be a waste to start even one or more similar institutions, when more money could be profitably spent on the one already existing and organized. A possible objection that might be raised against it as a central research institute is that it is not central, and is too far removed from the centres of industry. But considerations of climate must be taken into account, and must predominate if work is to be

done in favourable conditions. And as long as it is only problems that have to be referred to it, its distance from the centres of industrial activity matters little. There is room, of course, for reform in its constitution; and it could also be linked with the universities by including on its council members of the faculties of science. With regard to research workers at such a central institute, if they are picked up from the universities, given some Works experience by the manufacturers, some experience of the industrial atmosphere, before being sent on to such an institution,—as was recently done by a Bombay Mill-owner in the case of dyeing and bleaching,—it would be an infinite advantage. Public endowments, Government contributions and a part of the industrial profits, must all go together to develop and further the work of the only institution of its kind that has already had a start in the country.

With regard to the scientific services of Government, what is perhaps most needed is a Central Scientific Department, which will direct and co-ordinate the work of the existing groups of scattered investigators, groups being remodelled each under a senior officer. The services of these officers from the Central or Imperial department could be placed at the disposal of local Governments or pioneer manufacturers. The poorer provinces, who, at present, cannot afford their services, would also thus be benefited. Most of the scientific work to be done in this country, on subjects like sugar, tanning extracts, essential oils, chemical industries, forest and agricultural products, is indeed common to most of the provinces. And it could be more conveniently and less expensively done by the officers of a Central Imperial Department than by a variety of officers employed by a variety of provinces for a variety of purposes. Many of the existing services require strengthening if they are to be made efficient in helping to carry out an industrial policy. Some of the scientific officers of the educational service might also be encouraged to do research work, due care being taken that teaching is not neglected. The opening out of prospects in the scientific department would encourage them in such work, especially when they are taken out of the dead end which faces them at present. Further, Government must make up their minds to assist colleges and universities and research institutions by substantial subventions. They must also make provision for the establishment of scientific reference libraries in industrial centres, the need of which has been keenly felt. An Advisory Council of Research, consisting of scientists, and industrial and commercial men, would be a

valuable adjunct to the scientific organization of the country in preventing over-lapping, co-ordinating work, and helping to initiate and work out a systematic policy of industrial development.

There can be no progress or prosperity without industry. And we must utilize every resource available to facilitate its development. The task before us calls for the closest co-operation from all sides. Government must realise its duty of stimulating the study of science, organizing the training of research workers, organizing research itself in its application to the one and many problems that still await solution, and provide adequate funds for the purpose. Manufacturers on their part must appreciate the value of science in their operations, and co-operate by applying it systematically and sufficiently. Young men must come forward and devote themselves to scientific pursuits,—one of the greatest means of service to the country. Colleges and Universities must give the necessary preliminary training on a yet larger scale, and establish a direct connection with industrial requirements. Wealthy manufacturers and Associations must endow research fellowships to further this object, and help to finance and build up an up-to-date national research institution. Public opinion in the matter must likewise make itself felt. The Press and the Scientific Journals must take up the cry. Large sums of money will be wanted to create an atmosphere of scientific study and investigation, even apart from what the Government might spend on them out of the public funds. These may not bring immediate results. But sooner or later they must.

Let us not lose sight of the fact that there will be a shortage of men for the purpose after the war. We shall not be able to import skill as we have done in the past, except at prohibitive cost. As in the matter of capital, we may be thrown on our own in providing for our scientific requirements. And let us not also forget that it is our own resources that have to be experimented on and treated; and that local conditions, conditions of cultivation for instance, play an important part in any investigations bearing on them. To send our raw-material abroad for experimentation will not help *us*.

We have, in this country, already lost so much wealth by the neglect of research. So much wealth is yet undeveloped. And we have lagged so far behind. The great nations of the future will be those possessing, not the largest armaments, but the best brains. Efficiency will be the one deciding factor. Every industrial country

will strive its utmost to increase its capacity for production. And in the inevitable rush for markets that will follow, to guard our own, we must take steps to prevent the criminal waste of men and material that is going on in the country; and realise that new conditions involve new methods; that if we are to progress at all, and take our own resources into our own hands, it will be only as a result of the continual acquisition and application of scientific knowledge to industrial pursuits; that, after all, all industry is a means to an end—the satisfaction of human wants; and that the application of science to industry is a question of supreme national importance to us.

N. M. MUZUMDAR.

CAPITAL AND THE RATE OF INTEREST AFTER THE WAR.

One of the difficulties encountered very early by the student of Economics is the confusing way in which economic terms are defined in different ways by different economists. This difficulty is due to the fact that economic terms are not new words specially coined to fit in with advance in the science of Economics, but are borrowed from the language of everyday discourse. One of the most unsatisfactory of economic terms is Capital; and it has been defined and redefined in quite different ways by various writers. From Turgot's definition of Capital as "accumulated values" to Knies's definition of it as "Wealth set aside for the satisfaction—directly or indirectly—of future needs," there is a wide stretch of debatable ground which offers good scope for the exercise of individual ingenuity. The usual way to define Capital in text-books is to say that capital is wealth used in the future production of wealth. This definition merely makes a rough distinction between wealth and capital and does not tell us anything about its nature. To those persons whose minds are not filled with the cobwebs of economic theory, capital means money used in business. This is merely the substitution of an unsatisfactory term by another equally unsatisfactory one. If, however, we refrain from using the word money, (which, by the way, blinds the avarage man to the realities of economic life), and think only of "capital goods," or commodities produced by man's labour and used by their owner for the purpose of getting an income, whether owned passively or actively, we are at least on surer ground, and have no need to think in terms of

money, except for the purpose of comparison by computation. We exclude, therefore, land, human powers, and consumption goods. Capital Goods would include all concrete goods used in production, (transport being considered a productive process just as much as actual manufacture). Unfortunately this restricted definition of capital does not help us very much; it only gives us a firm rock on which to stand for some time at least and protect ourselves from the beating waves of controversy.

Capital is not a fixed stock or fund. It is constantly renewing itself and draws its nourishment from current income. The National Income is what is produced by the land and mineral resources of a country worked by man's labour and organised by him with the help of his accumulated resources. The larger the income, the larger, other things being equal, is the flow from which the capital goods of the country can be renovated and increased. If anything happens to check this flow of income or if this flow is diverted into new streams of consumption, capital also receives a check. The difficulty here is that if the definition of capital is restricted merely to income-bearing goods, we cannot take a sufficiently comprehensive view of the subject under discussion. The reason why the conclusions of practical men like merchants and bankers are apt to be incomplete and faulty is that they mostly think in "values" and not in concrete goods. Those who are in constant touch with figures are often dominated by those figures and are not able to dominate them. Thinking of capital in terms of "values" is a root-source of error. If we have to discuss increases or decreases in the National Income or in the supply of Capital, we should be careful not to place reliance on the statistics placed before us. The same statistics which are used to support an argument can be also used to disprove it. The economist, in this as in many other matters, has to go behind the mere money values, and translate money figures into terms of commodities and services—a not too easy task. Increases or decreases in money income or in capital do not measure real increases or decreases.

I know that this discussion is not entirely germane to the subject of this article, but I think it is not without some use to emphasise at the outset a point which many persons are prone to neglect. The present subject is not free from difficulties, and these difficulties cannot be lightly brushed aside. They are inherent in the very terms which we have to employ. The reader will not be, therefore, sur-

prised to find that when I come to the close of this article, I shall not be able to give him more than a crutch with which he will have to find out his way for himself.

War, like death, is a great destroyer. Some say that war is the result of over-production ; and, when it breaks out, it merely proceeds to destroy a surplus of wealth, and leaves society to start afresh with new energy and to fill the void which it makes. But there can be no over-production generally; there can be over-production only in particular trades, so that when war comes, it does not merely carry off a surplus for which there is no demand at existing prices, but it eats up much accumulated wealth as well as a large part of the current National Income which would have been otherwise productively employed. However, the incomes of different countries at the beginning of the present great war were so vast that if it had lasted only for one year, the destruction of wealth caused by it might have been perhaps more than made good by this time. But the war has taken its devastating course for three years and a half and is likely to go on for some time longer ; and the longer it lasts, the greater is the destruction which it causes. It is not easy to assess the great havoc and destruction which it has wrought, and when it does end, the sum total of the losses of men and material, of " brain capital " and material wealth and capital, will be even more appalling than it is at present. The actual cost of the war in the first three years was assessed by a writer in " the Fortnightly Review" as follows :

Expenditure of the belligerents	£ mill.	18,000.
Interest liability on loans	do.	500.
Economic value of lives lost	do.	5,000.
Damage to property etc.	do.	500.
Loss due to dislocation of trade	do.	150.

Accoding to Professor Marshall, a vast amount of productive capital has been converted into appliances for destroying the enemy and this has involved the destruction of capital, which would have been otherwise available for production. This capital has been obtained from:—

(1) The sale of securities held by British people in neutral markets.

(2) Depletion of stocks of goods held abroad at the charge of British exporters.

(3) Suspension of normal replacement of wear and tear of business plant of all kinds, railway rolling stock, houses, buildings etc.

(4) Depletion of savings which would have been normally devoted to investments abroad.

As against this he puts :—

(1) The increased production, due to men and women working over-time under the stress of their country's need.

(2) New plant put up for war purposes.

(3) New energy, improved methods of organisation.

(4) Cheapening of production in some trades by standardization of parts.

British capital invested abroad amounted to about £ 3,500 millions. According to the estimate of Sir George Paish, securities amounting to £ 500 million were called back in the beginning of the war. A writer in the " Frankfurter Zeitung " has stated that both England and Germany are consuming their capital to an unheard-of extent. He states that England has put much of her capital in foreign investments, while only 5 per cent. of German capital is invested abroad. Germany has thus to fall back on home investments, and the writer, therefore, says that the German method will necessitate a complete restocking of the country's empty ware-houses after the war.

We thus see that the war has made great inroads on the accumulated resources of past generations as well as on the current national income of all the fighting nations. Besides this there has been great destruction of property and other forms of wealth in Belgium, Poland, Serbia, Roumania, and the invaded parts of France and Russia.

As regards actual figures of the expenditure incurred by the Governments of the belligerent nations, we should point out that, while the present expenditure is vast and absolutely unprecedented, it does not impose a much heavier strain than the expenditure on past wars. The spending power of nations, as of individuals, is limited by their incomes. If an individual earns more he can spend more, and be none the worse off for his increased expenditure; and whether he is really better or worse off depends upon the manner in which he spends that income. Similarly the mammoth sums of money expended on the war by the bellige-

rent nations should not be compared with the sums which were spent on previous wars without taking into consideration the corresponding figures of their respective incomes (or spending capacities) in those times. The present expenditure is unprecedented, but the present income too is unprecedented; and the means of creating new wealth have also enormously expanded. The Napoleonic Wars, which lasted 23 years, cost the British Exchequer 830 million sterling. The American Civil War cost in all 1000 million sterling. The total expenditure in the short Franco-Prussian War was 506 million sterling. The Boer War cost the British taxpayer 250 million sterling. Japan's expenditure on the Russo-Japanese War amounted to 180 million sterling. The cost of the present war to Britain alone is between 6.3 and 7 million sterling per day. All other powers are spending in the same proportion, and now America is throwing in her gigantic resources into the crucible of war. But vast as this expenditure undoubtedly is, it must be compared with the national incomes of the people of the various countries which are engaged in the war. According to a recent calculation the present war costs per day about three-fifths of the average daily income of all the people of the belligerent states. Hence their capacity to bear the burden of war expenditure is in proportion to their respective incomes.

We have also to note that the whole of this colossal expenditure is not entirely wasted. The war has been instrumental in creating new sources of wealth in some directions. For instance, the total output of steel in England before the war was 7 million tons. It is now 10 million tons, and the latter figure, too, must have been exceeded by this time. This great increase in the output of a commodity which is useful both for commercial as well as for war-like purposes means an increase in the plant and equipment of the steel industry in England, which will be of great assistance to that country when peaceful avocations are resumed. This is only one instance of the way in which increased expenditure of the State increases productive power. New ships are also built in place of those which are destroyed by the enemy, and their utility will continue after the war is over. This merely shows that the whole of the expenditure on the war does not entirely vanish without leaving some tangible results behind. But it does not minimise the fact that the war has caused a great destruction of wealth in various directions. A great gap has been torn in the mercantile marine of the world. The free flow of commerce has been impeded. The streams of human activity have been diverted from pro-

ductive into non-productive channels. Roads, railways, buildings, factories, and also much "consumption capital," have been destroyed in the areas which have suffered from the ravages of war. This destruction has been greatly intensified by the ruthless methods adopted by the Germans in sinking valuable cargo-boats and ships. Thus the present war has not only caused an unprecedented expenditure of money, (part of which has come out of current income and part out of accumulated savings,) but it has also caused great destruction of economic goods, which will have to be gradually made good after the conclusion of hostilities.

To make good all this tremendous economic loss, there will be a very great demand for all commercial commodities after the war. All over the world there is, and will continue to be, a great dearth of raw materials and food-stuffs. Supplies everywhere are very short. House accommodation is relatively insufficient. In many of the belligerent countries there are arrears of work which must be made up after the war is over. One of the main causes of the high prices ruling in the world's markets at present is comparative scarcity of supply. Hence after the war there will be great activity in all trades; and those who will be engaged in the production of commodities, of which there will be the greatest shortness and of which there will be the greatest want, will be handsomely compensated. Those who will invest their savings in industrial concerns will receive high returns on their capital. In other words, there will be a great demand for capital. According to the principle of substitution, investors will rush to put their money into those businesses which will give the highest returns; those next in profitableness will also attract investors, until the whole stock of available capital will be exhausted. Hence the next question is, how much capital will be available after the war?

Capital comes out of savings, and savings come out of income. Already the war has cost many times the usual annual savings of the whole world. According to an American estimate made up to August 1917, the expenditure of all the Governments of Europe on the war was at least seven times greater than the whole world's supply of minted gold, and equal to an amount sufficient to build and equip railroads five times the number now operating in the United States, an amount which would have paid for two hundred such projects as the Panama Canal. A very large part of the savings of the

inhabitants of belligerent nations has gone into the loans raised by their Governments to finance this huge expenditure. This diversion of wealth must assuredly have great influence upon the future of the world's economic progress and upon the price which capital will command after the war. All Governments will be saddled with huge public debts. They will have to provide for sinking funds and will be burdened with the payment of interest at the high rates at which their respective loans have been contracted. They will also have to find money to meet very heavy charges for pensions and for many items of increased expenditure necessitated by the war. Taxation will be heavy, and already a levy on capital, (under the name of conscription of capital,) has been foreshadowed in England. There is also the probability that some European states may not be able to pay interest on foreign loans. All this must result in a reduction in the volume of capital which will seek remunerative investment after the war.

Against these, however, must be off-set certain factors, which can be only very briefly stated here. Much of the expenditure on the war has gone to pay for commodities produced and services rendered by the people of the belligerent countries; and when these commodities, (for instance, munitions) have been produced in foreign countries, there has been merely a transference of wealth from one country to another. Again, in such countries as England and France, the State has borrowed from the community, and much of its expenditure has again flowed back into the pockets of the community. The state puts increased taxation on the community to meet the interest on its public debt; and the interest as well as pensions and allowances also flow back to the community. A nation which lends to itself can pay itself back much sooner, and with greater benefit to itself than a nation which has to borrow from foreign sources. Experience has, moreover, shown that even when the financial resources of belligerent countries have been almost strained to breaking point by disastrous wars, they have displayed amazing powers of recuperation in the period following the conclusion of hostilities. After the Franco-Prussian War, France was crushed under the burden of a heavy indemnity, and had to maintain a German army of occupation ; but she paid the indemnity of five milliards of francs within three years, even before the stipulated day. The great financial recovery of France after this war was shown by the appreciation of the French Government securities. In 1868 they were valued at 115; in 1871

they fell to 82; in 1872 they rose to 84½; and in 1881 they appreciated to 142. Japan also recovered quickly after the Russo-Japanese war. In 1904 the Japanese 5 per cent. loan was valued at 62 ; in one year it rose to 93. In other cases also Government securities appreciated after the peace terms were signed, and there is thus a likelihood that war loans of the British Government which have been contracted at comparatively high rates of interest will appreciate after the war. This may not apply to loans contracted by Governments which have relatively poor financial resources and small recuperative powers.

It may be said that war contains within its gory bosom the necessary filaments of reconstruction and recuperation. The lessons of thrift and higher efficiency of organization are driven home. Economists sometimes speak of " Social Capital "; others, (noticeably Professor Marshall, in the permanent contribution which he has made to the literature of Economics, in *After-War Problems,*) speaks of " Personal Capital," both of which are very useful conceptions to keep before our minds while discussing the supply side of capital after the war. How far capital will increase after the war will depend upon personal qualities as well as upon efficiency of organization. It is difficult to estimate the advance recently made by nations in both these forms of immaterial capital, and their effect will be better appraised in the years that will follow the end of the war.

In this connection we may quote a familiar passage from Macaulay:

"If the most enlightened man had been told in 1792 that the interest on eight hundred million sterling would be paid to the day at the Bank, he would have been as hard of belief as if he had been told that the Government would be in possession of the lamp of Alladin or of the purse of Fortunatus..... The prophets of evil saw that the debt grew, and they forgot that other things grew as well as the debt."

Incomes will also rise to their old level after the war, although not perhaps in the first year of peace. Capital will increase with the increase in income. A high rate of interest is also a great incentive to people to save money ; and thus while scarcity of loanable capital will lead to a high rate of interest, a high rate of interest will lead to an increase in its supply. Thus while in the beginning there will be forces which will create a great demand for capital and will tend to increase its value and utility, there will be at work other forces which

will tend to increase its volume, and thus, tend (of course, gradually,) to lower its value. The trade boom after the war may even lead to over-production in some trades and the result may be crises and depression.

A great deal depends upon the prolongation of the war. The longer the war continues, the greater will be the havoc which it will cause, and the demand for capital after its conclusion will be all the more intense. Other unknown factors may also come into play. For instance the export of capital from England has been prohibited. This prohibition will prevent British capital from seeking remunerative investment abroad. If it remains in force after the war, it will tend (a) to keep down the rate of interest in the United Kingdom from rising still higher, and (b) to maintain a high rate of interest in those countries which have hitherto depended more or less upon British capital for their industrial development.

Having examined the various factors which will affect the demand for, and the supply of, capital after the war, we shall now proceed to answer the question, what will be the rate of interest after the war? There are are various theories of interest. Professor Irving Fisher mentions them all in his exhaustive survey in his able book on "The Rate of Interest." It is not possible for us within the limits of this article to enter into a discussion, however short, on the various factors which affect the rate of interest. For our purpose it will be sufficient to regard interest as the price paid for the use of capital, and to say that like every other value, it is fixed by the supply of capital which seeks remunerative employment, and by the extent of the field of investment; or in other words, by the supply of capital, and the intensity of the wants of those who require it for production. The rate of interest after the war will be fixed according to these two factors, and not, as is sometimes assumed, by the rates at which governments have contracted their public debts.

According to our analysis, the supply of capital after the war will be somewhat reduced; the demand for capital after the war will be enormously increased and this enormous demand will continue until society has recovered from the ravages of the colossal struggle into which it is plunged at present. Obviously capital will command a high price after the war. Inflation of currency also tends to keep up a high rate of interest. According to Professor Marshall, "peace will bring prices down but not to their old level; a continued rise in prices will

tend to sustain a high rate of interest and to increase the difficulty of converting the National Debt on the basis of the lower rates than those at which it has been incurred." How long this high rate of interest will last, how much higher it will be than the pre-war rate, and by what gradations it will fall, are questions which the exigencies of space will not allow us to discuss. I shall, therefore. conclude this very imperfect attempt to solve an intricate problem with quotations from two recent books on the financial aspect of the war :

"Credit will be scarce and dear, liquidation difficult, and competition severe. What will be the condition of Europe when peace comes through exhaustion, after the Continental states have used up all their credit and borrowed all that can be borrowed, can be left to the imagination of those who can pierce further through the gathering gloom." (*The Political Economy of War,* by F. W. Hirst.)

" All past experience goes to prove that the process of financial adjustment, after the war, will involve an economic strain of exceptional severity affecting every belligerent. Not only will the artificial stimulus of the prodigious Government expenditure be withdrawn very suddenly from the industries concerned, but there will arise, in such a shape as history has perhaps never before presented, the problem of bringing back to normal basis, the currency and credit systems, inflated and perverted as they have been by the remarkable emergency expedients which every Government applied and has continued to apply in face of the progressive decrease in the stock of accumulated capital." (*Financial Chapters of the War,* by Alexander Dana Noyes.)

M. J. ANTIA.

NOTES ON CURRENT TOPICS.

Railway Nationalization.

The Hon'ble Mr. B. N. Sarma raised in the Imperial Legislative Council on March 18, the old but still unsolved question of Railway Nationalization. The opportunity was offered by the prospect of the termination of the contract with the East Indian Railway on 31st December 1919. The Hon'ble Mr. Sarma's main arguments were that, on the whole, the country would be benefitted financially by the assumption of Railway management by Government, that it would offer greater facilities for the development of industries and that Company management was tried in continental countries and was eventually abondoned. The resolution was supported by almost all the non-official members except Sir Hugh Bray and Sir Dinshaw Wacha who opposed it on the ground that the present system made for economy and efficiency and that both would perhaps suffer under popular management.

The problem of railway nationalization is a problem of practical politics and cannot be solved on theoretical grounds alone. It must be tackled with special reference to the conditions prevailing in any country. It is a particularly difficult problem in that it ought to be discussed with equal care from the point of view of state policy and national defence, as well as from that of economics. From the standpoint of state policy it is but natural that Indians should regard the state, though foreign in personnel, as more amenable to public opinion than private companies controlled by persons who have no interest in the land and who are living 6000 miles away from it. Past experience has not been favourable to company management of railways. Even publicists of Sir Dinshaw Wacha's experience and position have expressed themselves against companies in the following terms :—"In no other department of the State is the interest of the white man more sedulously conserved and more actively promoted than in the department of Railways." The views expressed by the Japanese Government when nationalizing their railways also support our contention. "On the political side the Government (Japanese) emphasized the necessity of protecting land and people from foreign influences over railroads by nationalization." So from the point of view of State policy state management of railways is to be preferred to company management.

For mobilization of forces, the state management is bound to be more efficient than company management. Even in England where company management is as efficient as it could be, the state had to assume the control of railways as soon as the war broke out. In India they have not thought it necessary to do so firstly because Indian railways are partly nationalized, being state-owned, and secondly because the theatre of war is far away from the place. Otherwise it needs no telling that for national defence, which may be both defensive and offensive, systematically connected railroads under one control and management are a *sine que non.*

The point where railways enter the field of economics is the matter of finance, rates and tariffs. The chief function of an economist is to see how to increase the wealth of the nation. Increase or decrease of the wealth of the whole community is the criterion by which will be decided whether a particular organisation is economically right or wrong. Indian railways have begun to earn profits since very recently. Till the end of 1909–10 they have been responsible for a loss of not less than Rs. 40·84 crores. Sir Dinshaw Wacha says "Indian Railway finance from the very first day that the railways were laid out in India has been a series of colossal blunders which would have created a howl in any other civilized country on the face of the globe. Every new departure taken in railway enterprise from 1848 to 1908 has been of a most suicidal character financially to the true interests of India. Railway construction at the outset by private enterprise in India has really led to a huge mill-stone being hung round the neck of the state." The sooner this mill-stone is removed the better. The artificial diversion of trade and commerce by means of blockrates has been patent to all. The growth of industries has been handicapped for want of concessions in railway rates. Besides, we find railway companies taking away profits out of the country and the interests of the people subordinated to alien consideration. One crore or one crore and a half is not a small amount for the country to lose on its company managed railways each year. Even supposing that the railways are not likely to be managed by the state as efficiently as by the companies—a statement which we do not accept—there will be certain advantages attendant on state management which must be taken into account. In order that the economic life of the country should flourish it is therefore necessary that the rail roads should be entirely under the control and management of the state. To divide up the net work of railways between different lines is prejudicial to

the general welfare; for different managements increase charges, make traffic heavier for long distances, give rise to un-economic transactions and lead ultimately to great difficulties and additional expense.

Indian Companies' Restriction Act.

We are sorry that the Bill regarding restrictions on the issues of Capital has not been dropped but has been passed. On the other hand, one would think a country like India would require a Bill to subsidise and guarantee profits to companies. But, somehow, the opposite suggested itself to the Government. First we must protest against any questioning of our loyalty because we oppose this unnecessary measure. We wonder what connection any opposition to this measure would have with the determination to win the war. The suggestion hardly does justice to the intelligent and moneyed section of the community. The Bill has been opposed not only by all Indian Journals but also by leading Anglo-Indian journals like the Capital, Commerce and the Times of India. The Times of India has impartially stated: "India industrially is a backward country, ordinarily short of capital. * * * * * Money is not static; it is very fluid; if not caught now for the industrial growth of India it may never be forthcoming." The necessity for such an Act is based on a very slender ground that the free issues of capital would affect the loan amount. We wonder whether it will, at all. In India the total annual issue of capital comes to about 10 to 15 crores and it is notorious that the paid up capital comes to less than one-half of the subscribed capital. Usually, in companies some money for circulation comes out of the savings of small share-holders and we believe more money will be attracted for circulation by free issues of capital than by this restriction. Besides, all the money raised will not be spent as it is difficult to get the necessary machinery and will be kept on as Bank balances which can be utilized for short-term loans. The Hon. Mr. Hogg's suggestion was the best and we hope it will be adopted. The Act will not affect private capitalists and a few millionaires can start a few mills and companies without giving a chance to the small share-holders. Also the Act has left out of account the ingress of foreign capital, American and Japanese, which will compete with both English and Indian capital. It is well-known that American capital has found its way in Calcutta and we have read in Calcutta papers, two or three companies having been started with most of the capital being American, Australian or Japa-

nese. The Government has not put any restriction on this foreign capital, public and private. Simultaneously with the present restriction, we demand there should be an ordinance prohibiting the import of capital from other countries. England alone cannot export capital but other countries can. And the 'sacrifices' mentioned by Sir W. Meyer, we shall make for England but not for the benefit of other countries. The Government must guarantee that the Report of the Industrial Commission shall not be availed of by foreign capitalists. Anyway, an Industrial Commission and restriction on capital are two very incongruous things—especially in an industrially backward country like India. The best course is to adopt Mr. Hogg's suggestion to allow the floating of companies on condition a portion of the capital is invested in the short term loans. The small investors who are generally shy, will then have a chance. However, we have no objection to a judicious and impartial restriction, provided it is directed against mushroom growths which disfigured the years 1907 to 1910. We shall wait and see how the committees to control the issues of capital work.

The Bombay Rent Act.

This Act, No. III of 1918, is intended to restrict the increase of house rent in the Bombay Presidency. The justification given for this kind of legislation in the statement of objects and reasons is that it conduces to the interests of the community as a whole to regulate to some extent the power, which the purely abnormal conditions of the war have placed in the hands of persons occupying a certain position in the economic organisation, to take advantage of others less favourably situated. The exigencies of the war have caused an influx of population, both military and civil, into certain localities and the supply of accomodation has for various reasons not kept pace with the demand. It is inequitable that the enhanced value thereby given to existing properties should be wholly appropriated by one party, the land-lord, to the detriment of the tenant whose services in particular locality are in most cases equally essential to the state.

This gives a clear *raison d'etre* for the Act. To the extent that it is a restriction on the money-making activities of the land-lord, it is not liked by him. He opposes it on the following doctrinaire ground. What reasons are there for Government interference? We rely upon the law of supply and demand for providing all necessaries. Why should we not be able to rely upon the same law in the matter of

dwelling accomodation, an investment which capitalists do not shun? The argument looks *prima facie* quite plausible. In normal times it is, no doubt, always safe to trust to the economic law of supply and demand, for provision of necessaries; but not in abnormal times like the present when extra-ordinary economic forces intervene. The law of supply and demand implies free competition on both sides *i. e.*, between the "buyer" and the "seller" and that no monopolistic power is acquired by either. Monopoly means power to dictate terms which may be utilised to the detriment of monopolist's customers and which, on that account, becomes a fit subject of regulation by the state which is nothing but a "justice-enforcing association."

The land-lords of the places *viz.*, the city of Bombay, the taluka Salsette and the Municipal district of Karachi to which the Act, in the first instance, will apply, have, under the present war conditions, acquired monopolistic power and have also shown their hand to use it to their advantage, Besides, we think house accommodation is not as amenable to the law of supply and demand as any other Commodity. Houses cannot and do not grow in a day to order. They take a long time to equilibrate the demand if it suddenly increases as has been the case at the present time. Furthermore the land-lords are not specially known for their public spiritedness. They are not less responsive to self-interest than any purveyor of articles of food. "It is not from the benevolence of the butcher, the brewer or the baker," Adam Smith tells us, "that we expect our dinner, but from their regard of their own interest. We address ourselves not to their humanity, but to their self-love, and never talk to them of our own necessities, but of their advantage." Can the same not be said of the land-lords? Then why should they grumble? We think Government have done the right thing at the right time. Much of the ground of complaint has also been cut off from under the feet of land-lords by the date of standard rent being brought forward from 1st January 1915 to 1st January 1916. If the period of operation of the Act had been confined to six months after the war and no longer, the Act would have come in a line with other war measures. On the whole, we congratulate the Government of Bombay for their having carried this *socialistic* legislation.

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Treasury Bills.

The pressure of war conditions has led to the introduction of a number of innovations into the financial organization of India. One of these is the resort the

Government of India has taken to Treasury Bills for raising money for the disbursements it has had to make on behalf of His Majesty's Government. Treasury Bills are very popular in England and they are a favourite method adopted by the British Government for raising temporary loans. They are a fine form of investment for people who have money lying idle with them for a time. In India, for several years the Reserve Treasury system has done the work of the Treasury Bills, and it was only a serious deficiency of money felt by Government that suggested the adoption of the British method. The experiment succeeded beyond expectation and Government balances were replenished to a very large extent by these temporary borrowings. After the termination of the war the whole question of Indian Currency and financial organization will have to be reconsidered in the light of the experience gained during the period of the war and we believe, with the advent of a State Bank, Treasury Bills will become a permanent feature of Indian finance.

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Gold Mint.

Another important change is the establishment of a Gold Mint in Bombay. For eighteen years the question has been discussed from time to time and there has been an endless correspondence on the subject between the Government of India and the Secretary of State on one side and between the latter and the Mint Authorities and the British Treasury on the other. There was some enthusiasm about the subject when the Gold Standard was adopted in India in 1899, and it was believed that a Gold Mint was necessary for the success of the new Currency Policy recommended by the Fowler Committee and accepted by the Government of India. But very soon a kind of coolness came over the policy of Government which steadily drifted towards a Gold Exchange Standard. It was stated that a Gold currency would be a costly luxury for India and that a Gold Mint in India was a sentimental superfluity. The Chamberlain Commission added the weight of its opinion to this view and the incongruity between a poor country and a Gold Mint was pointed out. But Lord Hardinge's Government sent out a convincing despatch to the Secretary of State for India, and if the war had not intervened a Gold Mint might perhaps have been established by this time in the country. All scruples and objections, however, vanished in the presence of the difficulties created by the war, and at last a Gold Mint has been started in our midst. It was a curious anomaly that the very people who spared no words of exaggeration in

describing the growing trade and the financial prosperity of India, were the foremost to object to the circulation of gold coins in this country and to a Gold Mint coining sovereigns for the people.

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War Finance and Transfer of Funds.

The opposers of Gold Mint wanted India to economise the world's supply of gold and they wrote in a way which suggested that other nations were doing an act of kindness to this country in sending gold out here. The use of paper is certainly more economical than that of the precious metals but the gold imports to India were nothing in view of the large population of this country. The spread of education and familiarity with paper media of exchange are bound to augment the quantity of paper money in circulation, and on account of the more extensive use of currency entailed by the enormous transactions required by war expenditure, during the past four years, the total gross circulation of notes has gone up by Rs. 40 crores. Notes of smaller denominations than Rs. 5 *viz.*, the one rupee and two-and-a-half rupee notes have been already introduced and people are using them without difficulty. The authorised investments on behalf of the Currency Reserve now amount to Rs. 86 crores and Rs. 54 crores out of these will be invested in British Treasury Bills. The transfer of Indian Funds from this country and their investment in London had evoked strong protests before the war, but now that has become a convenient method of lending funds to the British Government. Sir Fazulbhoy pointed out in the Viceregal Council how the fresh investment of £20 millions in British Treasury Bills as a sort of reserve capital for after war times, entailed an annual loss to India of about Rs. 45 lakhs in interest and the Finance member could only plead that it was a necessary sacrifice, if a sacrifice it could be called. The important point is that the heavy disbursements of the Indian Government on behalf of his Majesty's Government, automatically result in the Transfer of India's funds to London which cannot be returned to this country, and India has to suffer loss in helping the prosecution of the war. Only let India's assistance and sacrifice be duly recorded and acknowledged.

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The Bombay Revised Financial Statement.

The Bombay Revised Financial Statement is overshadowed by financial stringency which the war has brought about. Were it not for this, the financial position of the Presidency could not have been more satis-

factory. The revenue for 1918–19 is estimated at an amount which exceeds the figure put down in the last year's budget, by more than a crore of rupees and stands at Rs. 9 crorers. The expenditure also is taken at a higher figure, *viz.* Rs. 8·68 crores, an excess of about Rs. 80 lakhs. Excise, Forests and the Income Tax contribute large shares to the increase of revenue, and education and sanitation have benifited a good deal on the expenditure side. On the whole, the Government of Bombay have shown greater sympathy and liberality in the matter of providing funds for useful purposes. But they had to hold their liberal instincts in check owing to the necessity of refraining from drawing upon their balances lying with the Government of India. These balances have now reached the high level of Rs. 4¼ crores, but as the Supreme Government wants every pie that can be saved and made available, the Government of Bombay is in duty bound to practise economy. The new policy of dealing with excise administration is bringing large amounts into the treasury and it has been wisely decided to set apart this increase for rendering assistance to municipalties and local bodies to enable them to spend more on education, sanitation and other objects of public utility. With a normal rainfall, the revenue of the coming year may be expected to exceed the anticipated figure put down in the budget and more will be available for being spent on measures of an ameliorative character.

REVIEW-ARTICLE.

MR. RUSSELL AND THE RECONSTRUCTION OF SOCIETY.

The "Principles of Social Reconstruction"* by the Hon. Mr. Bertrand Russell is a war book. Bellicose literature, on the whole, is either propogandist or preventive. Mr. Russell's book, though it falls under the latter, must be distinguished from the rest of the same class. Of the preventive books some argue against the unnatural geographical barriers within which have been impounded some unwilling nations by their masterful conquerors: others like Mr. Angell's Great Illusion, attempt to show that in the calculus of war loss prevails over gain even to the victor. Mr. Russell's however, is a diagnosis, altogether different. Wars, he believes, cannot be banished by rationalistic appeals such as above. "It is not by reason alone" he says "that wars can be prevented but by a positive life of impulses and passions antagonistic to those that lead to war. It is the life of impulse that needs to be changed, not only the life of conscious thought". ‡ As his diagnosis is different so is his social philosophy. To him, "the chief thing to be learned through the war has been a certain view of the springs of human action, what they are, and what we may legitimately hope that they will become. This view, if it is true, seems to afford a basis for political philosophy more capable of standing erect in a time of crisis than the philosophy of traditional liberalism has shown itself to be." §

In consonance with this attitude he adopts the standpoint of the behaviouristic psychology.† A most important contribution of this new development in the Science of Psychology consists in a novel view of the springs of human action. It has overthrown the doctrine that external circumstances are responsible for man's activity. If it were so, contends the behaviorist, it would presuppose a quiescent being which is a biological untruth. Man, it propounds, has the springs of action within him for he is *born* with certain tendencies to act. External circumstances do not induce

* London: George Allen and Unwin, Ltd. 1917-6/—net.

‡ Principles of Social Reconstruction. P. 12

§ ibid. P. 9.

† Readers of Mr. Russell will do well to acquaint themselves with Prof. E. L. Thorndike's "Educational Psychelogy" Vol. I. "On the Original Nature of Man."

activity. They only *re*-direct it. These tendencies to act, further says the behaviourist, in their working, become modified by the effect of the Social *milieu* in which they function. The modifications which these original tendencies undergo are of the highest importance. They constitute Education in the broadest sense of the word. All modifications, however, are not equally valuable and it is the business of the reformer to eliminate the circumstance and institutions that modify these tendencies for the socially worse and preserve and introduce those that will modify them for the socially better. Whatever that may be, it is of immense social value that these tendencies are capable of indefinite modifications. This is possible only because as Mr. Russell says "Man's impulses are not fixed from the beginning by his native dispositions. Within certain limits, they are profoundly modified by his circumstances and his way of life. The nature of these modifications ought to be studied, and the results of his study ought to be taken account of in judging the good or harm that is done by political and social institutions."‖

In six illuminating chapters Mr. Russell studies the modifications that human nature has undergone under the institutions of State, War, Property, Education, Marriage and Religion. It is impossible to give an adequate idea of Mr. Russell's social philosophy by summarizing the contents of each one of these chapters. They are living contributions to the literature of the several subjects they deal with. Full of suggestions, they provoke thought and ought therefore to be read from the original. This might be unconventional so far as reviewing is concerned but is justified by the fact that this review is meant for an economic journal for the purposes of which, we need only attend to the analysis of the institution of Property and the modifications it is alleged by Mr. Russell to produce in human nature.

Before, however, proceeding to the task, it may be worth while discussing how the philosophy of war is related to the principles of growth as expounded by Mr. Russell.

At the outset it must be said that, because his is an anti-war book, those who read in him the philosophy of quieticism will have read him all wrong. For, though Mr. Russell is anxious for the abolition of war, he explicitly states that "in spite of all the destruction which is wrought by the impulses that lead to war, there is more hope for a

‖ ibid. P. 19.

nation which has these impulses than for a nation in which all impulse is dead. Impulse is the expression of life and while it exists, there is hope of its turning towards life instead of towards death; but lack of impulse is death, and out of death no new life will come."* He further acknowledges that "a great many of the impulses which now lead nations to go to war are themselves essential to any vigourous or progressive life. Without imagination and love of adventure a society becomes stagnant and begins to decay. Conflict, provided it is not destructive and brutal, is necessary in order to stimulate men's activities and to secure the victory of what is living over what is dead and merely traditional. The wish for the triumph of one's cause, the sense of solidarity with large bodies of men, are not things which a wise man will wish to destroy. It is only the outcome in death and destruction and hatred that is evil. The problem is to keep these impluses without making war the outlet for them."‡

The gist of it all is that *activity is the condition of growth.* Mr. Russell, it must be emphasized, is against war but is not for quieticism; for, according to him, activity leads to growth aud quieticism is but another name for death. To express it in the language of Professor Dewey he is only against "force as violence" but is all for "force as energy." It must be remembered by those who are opposed to force that without the use of it all ideals will remain empty just as without some ideal or purpose (conscious or otherwise) all activity will be no more than mere fruitless fooling. Ends and means (=force in operation) are therefore concomitants and the common adage that the end justifies the means contains a profound truth which is perverted simply because it is misunderstood. For if the end does not justify the means what else will? The difficulty is that we do not sufficiently control the operations of the means once employed for the achieving of some end. For a means when once employed liberates *many* ends—a fact scarcely recognized—and not the one only we wish it to produce. However in our fanaticism for achievement we attach the article "the" to the end we cherish and pay no heed to the ends simultaneously liberated. Of course for the exigencies of an eminently practical life we must set an absolute value on some one end. But in doing this we must take precaution that the other ends involved are not sacrificed. Thus the problem is that if we are to use force, as we must, to achieve something, we must see that while working for one end we do

* ibid. P. 21.
‡ ibid. P. 93.

not destroy, in the process, other ends equally worthy of maintenance. Applying this to the present war, no justification, I think, is needed for the use of force. What needs to be justified is the destructive violence. The justification must satisfy the world that the ends given prominence to by one or other of the combatants could not be achieved otherwise than by violence, *i. e.*, without involving the sacrifice of other ends equally valuable for the stability of the world. True enough that violence cannot always be avoided and non-resistance can be adopted only when it is a better way of resistance. But the responsibility for an intelligent control of force rests on us all. In short, the point is that to achieve anything we must use force: only we must use it constructively as energy and not destructively as violence.

The length of this discussion of the philosophy of war as related to the principles of growth can be justified, if need be, by more extenuating circumstances than one. The present European war has brought into unmeasured and even thoughtless censure the philosophy of force and has ushered to the forefront the gospel of quietism and the doctrine of non-resistance. The fact that Mr. Russell's is an anti-war book, the author of which was sentenced to six months' gaol, not for writing the book under review but for being a pacifist crank, will be construed to lend its support to the lurking desire in many a mind for a passive life as a natural reaction from the turmoil of war. It was therefore necessary to know how far Mr. Russell shared in this condemnation of force. A second justifying circumstance is furnished by the bias in the minds of the Indian readers of Mr. Russell. It will be realized that what is advocated to take the place of the philosophy of force is essentially an Eastern philosophy or to be specific, Indian philosophy. It was therefore much more important to present Indian readers of Mr. Russell with a correct interpretation of his attitude. Their innate craving for a pacific life and their philosophic bias for the doctrine of non-resistance, I am afraid, might lead them to read in Mr. Russell a justification of their view of life, if not guarded against.

Is the Indian view of life a practicable view? Nietzsche in his cynical mood said of Christianity that there was only one Christian and he was crucified-implying the impracticability of the Christian view of life. This remark, if it is true of the Christian, must be true, in a larger degree, of the Eastern view of life as well: for, though regionally Western

yet Christianity in its origin as well as in its content is essentially Eastern. Equally condemnatory, though not so severely, as shown above, is the attitude of Mr. Russell towards this philosophy of quieticism. One cannot however fail to notice with dismay the persistance of this attitude towards life on the part of Indians notwithstanding its theoretical impossibility and the many vissicitudes through which the country has passed. Nay, in the present days of Indian Nationalism—which sadly enough is tantamount to justifying everything Indian-the attitude is likely to be upheld and continued. Note, that of the stock contrasts between the East and the West, thrown in relief by the war, the East is ever eager to give prominence in terms of self-glorification to one—that of its being free from the extreme materialism of the West leading to war and devastation. There is however no justification for setting the West in such a cruel contrast. The East is too prone to forget that materialist we all are; even the East in spite of itself. Regarding the war, perhaps, the West may be blamed. But it can retort and say, "not to act is to be dead. Life consists in activity. It is better to act even violently as in war than not at all for only when we act that we may hope to act well." Thus, surprising as it may be, the pacifist Mr. Russell thinks even war as an activity leading to the growth of the individual and condemns it only because it results in death and destruction. He would welcome milder forms of war for according to him "Every man needs some kind of contest, some sense of resistance overcome, in order to feel that he is exercising his faculties"† in other words to feel that he is growing.

Of the many reasons urged in support the Indian view of life one is that it is chiefly owing to its influence that India alone of all the oldest countries has survived to this day. This is a statement that is often heard and even from persons whose opinions cannot be too easily set aside. With the proof or disproof however of this statement I do not wish to concern myself. Granting the fact of survival I mean to make a statement yet more important. It is this; there are many modes of survival and not all are equally commendable. For instance, mobility to beat a timely retreat may allow weaker varieties of people to survive. So the capacity to grovel or lie low may equally as the power of rising to the occasion be the condition of the survival of a people. Consequently it cannot be granted—as is usually supposed —that because a people have survived through ages that therefore

† ibid. P. 96.

they have been growing and improving through ages. Thus it is not survival but the quality, the plane of survival, that is important. If the Indian readers of Mr. Russell probe into the quality of their survival and not remain contented merely with having survived I feel confident that they will be convinced of the necessity of a revaluation of their values of life.

This much for Mr. Russell's outlook towards the philosophy of war. We will now turn to his analysis of the effects of property. Mr. Russell passes in review the various existing economic organizations of society, the social ills they produce and the remedies put forth. His critique is summarized by himself as follows :—

"The evils of present system result from the separation between the several interests of consumer, producer, and capitalist. No one of these three has the same interests as the community or as either of the other two. The co-operative system amalgamates the interests of consumer and capitalist; syndicalism would amalgamate the interests of producer and capitalists. Neither amalgamates all three, or makes the interests of those who direct industry quite indentical with those of the community. Neither, therefore, would wholly prevent industrial strife or obviate the need of the State as arbitrator. But either would be better than the present system, and probably a mixture of both would cure most of the evils of industrialism as it exists now. It is surprising that, while men and women have struggled to achieve political democracy, so little has been done to introduce democracy in industry. I believe incalculable benefits might result from industrial democracy either on the co-operative model or with recognition of a trade or industry as a unit for purposes of Government, with some kind of Home Rule such as syndicalism aims at securing. There is no reason why all Governmental units should be geographical. The system was necessary in the past because of the slowness of means of communication, but it is not necessary now. By some such system many men might come to feel again a pride in their work and to find again that outlet for the creative impulse which is now denied to all but a fortunate few. Such a system requires the abolition of the land owner and the restriction of the Capitalist, but does not entail equality of earnings. And unlike Socialism, it is not a static or final system ; it is hardly more than a frame-work for energy and initiative. It is only by some such method, I believe, that the free growth of the individual can be

reconciled with the huge technical organizations which have been rendered necessary by industrialism".*

It is a common place criticism of the industrial system that it gives rise to compartmental ethics, dwarfs the personality and makes slaves of the workers. To obviate such a result Mr. Russell approaches with a cautious spirit, a breadth of outlook and philosophic grasp of the social effects of the Economic Institutions. I wish the same could be said of his analysis of the mental effects of property. On the the other hand his discussion of this aspect of property is marked by certain misconceptions which it is necessary to expose.

The first misconception is embodied in a statement about the "love of money" in which he says "it leads men to mutilate their own nature from a mistaken theory of what constitutes success, and to give admiration to enterprizes which add nothing to human welfare. It promotes a dead unformity of character and purpose, a diminution in the joy of life, and a stress and strain which leaves whole communities weary, discouraged, and disillusioned."‡ This is a sentiment that smacks of the antique and once served as a basic philosophy of life, probably with justification. The economic life and the philosophic outlook of a society are more intimately connected than is commonly supposed† and chipped off its exaggerations, the Economic Interpretation of History holds true. This time-honoured complaint of the moralists against "love of money" is only a part of their general complaint against the goods of the world and finds its justification in the economic circumstances which gave rise to this particular belief. Bearing this in mind, it becomes easy to understand why the philosophy of sour grapes, of the have-nots, is the most human of all beliefs and why it so largely pervades our values about things which we can and things which we cannot possess in spite of our efforts to have them. When we cannot have a thing we argue that it is not worth having. There is thus a genuine difference between the outlooks of the "haves" and the "have-nots" towards wordly goods as there is between the religions of the down-cast and the successful. Each one in obedience to its profundly moral nature—moral even in its immorality in that it seeks justification for everything

* ibid. P. 141–142.

‡ ibid. P. 113.

† Cf. James Bonar "Philosophy in its Relation to Political Economy"; more particularly Achille Loria "Economic Foundations of Society".

it does—idealises its own attitude. At a time when the whole world was living in "pain economy" as did the ancient world and when the productivity of human labor was extremely low and when no efforts could augment its return, in short, when the whole world was living in poverty it is but natural that moralists should have preached the gospel of poverty and renunciation of worldly pleasures only because they were not to be had. The belief of a society of "pain economy" is that a thing must be bad if it cannot be had just as a society of "pleasure economy" addicted to "conspicuous consumption" belives that a thing must be nasty if it is cheap. Neither does the re-statement of the evils of "love of money" by Mr. Russell add any philosophic weight to its historic value. The misconception arises from the fact that he criticises the love of money without inquiring into the purpose of it. In a healthy mind, it may be urged, there is no such thing as a love of money in the abstract. Love of money is always *for something* and it is the purpose embodied in that "for something" that will endow it with credit or cover it with shame. Having regard to this, there can be no "dead uniformity of character" among the individuals, for, though actuated by love of money, their purposes on different occasions are likely to be different. Thus even love of money as a pursuit may result in a variety of character.

If Mr. Russell's thesis is shaky when looked at from the production side of our life, it entirely falls to the ground when looked at from the consumption side. Really, to prove that human nature mutilates itself by feeding, exclusively, some one appetite we shall have to find our support by scrutinizing not the production but the consumption side of life. Now knowing as we do the laws of consumption§ is there a possibility of such mutilation? The answer, as we shall see, is in the negative.

The laws of consumption, it may be noted, are simply certain deductions from the economic doctrine of the utility theory of value. Formulated, as a reaction to the classical theory by Cournot, Gossen, Walras, Menger and Jevons, it no longer thinks of utility as a quality inherent in the objective thing or condition but as dependent upon the capacity it possesses to satisfy human wants. This being so, the utility of an object varies according to the varying condition of the organism needing satisfaction. Even an object of our strongest

§ For a brilliant discussion of them C/o Prof. S. N. Patten's "A Theory of Consumption".

desire like food may please or disgust, according as we are hungry or have over-indulged the appetite. Thus utility diminishes as satisfaction increases. In other words as satisfaction is the pleasurable activity of a particular organ or a group of them, the curve representing the relation of the organ to the object of its satisfaction varies *inversely* with the condition of the organ.

If Mr. Russell had carefully gone into the implications of this psychological analysis, he would certainly have avoided the miscenception in question. For what does the psychological analysis really mean? Why does the utility of an object tend to be zero or even negative? This takes place it may be argued either (1) because at some point in the process of satisfaction the particular organ irritated ceases to derive any further satisfaction by feeding itself on the object of its craving or (2) because other organs needing a *different* kind of satisfaction clamour against the over-indulgence of some one organ at their expense. Prof. Giddings holding the latter view says "if the cravings of a particular organ or a group of organs are being liberally met with appropriate satisfactions, while other organs suffer deprivation, the neglected organs set up a protest, which is usually sufficiently importunate to compel us to attempt their appeasing. The hunger of the neglected parts of our nature normally takes possession of consciousness, and diverts our attention and our effort from the organ which is receiving more than its due share of indulgence".* Of the two alternative explanations that of Prof. Giddings is probably the more correct. Having regard to the behaviouristic hypothesis, of the organism as an active entity, it is but proper to suppose that there does exist this hunger of the entire organism for a varied satisfaction appropriate to each of its organ which would engender such a protest. It is this protest that compels obedience to what is called the law of *variety in consumption.* If this is a fact it is difficult to understand how one organ by perpetual dominance can mutilate the whole organism. On the other hand, though one at a time, all the appetites have their turn. Human nature is, thus, fortunately, provided by its very make-up against a onesided development leaving no doubt as to its promise for an all-round development in a congenial environment. Whether it will be able to obtain the miscellaneous food-material, intellectual or spiritual–it craves for, is a matter beyond its control. If it is mutilated by the lack of variety of food, it will be through social default and not its own.

* Democracy and Empire, p. 19.

[redacted]f Mr. Russell is that property as the embodi- [redacted]instinct leads to war. One may agree with [redacted]ay that Fredric Nietzsche understood the effects [redacted]han Mr. Russell. This effect is well summed up [redacted]hucydides relates somewhere. He depicts a farmer [redacted]ered his harvest was sitting by the side of the heap [redacted]e market and the gains of his business; while deeply [redacted]is reverie he was surprized by a robber. Thus aroused, [redacted]ithout even uttering a word of protest, at once consented [redacted] pile and thanked heavens for having escaped with the loss [redacted]alf. Whether the above is a fact or a fable, it contains a [redacted] truth not always perceived. How much man is tamed of his [redacted]ture by his acquisitions through the course of time it is not [redacted]ble to measure. But that it is so is beyond doubt. Nietzche was [redacted]fectly aware of this and would not therefore let his Superman hold [redacted]y property lest he (the Superman) might not play the havoc [redacted]ietzsche wanted him to play for the fear of losing his acquisitions in [redacted]he bargain. The trouble therefore one might say, is not with property but with the unequal distribution of it; for those who have none of it are prone to perpetrate more destruction for its possession than those who have. An industrial dispute of the modern time is another illustration and that workers, in a strike, use more violence than their employers can only be understood in the light of the above remarks. It is the existence of the stake that blunts the sword and it is the non-existence thereof that sharpens it. Thus property may be aggressive. Yet it is not without its compensating effects.

It would be unjust to pass over silently a most fundamental notion that pervades the whole outlook of Mr. Russell. He says that "men's impluses and desires may be divided into those that are creative and those that are possessive. Some of our activities are directed to creating what would not otherwise exist, others towards acquiring or retaining what exists already. The best life is that in which creative impulses play the largest part and possessive impulses the smallest."‡ Is it possible so to divide the impulses? Is there such a thing as an impulse to appropriate? It is beyond the scope of this review to discuss this large question. I simply intend to raise a query because I feel that by making the distinction as one of instinct, Mr. Russell is not quite on safe ground. Every impulse, if

‡ Principles of Social Reconstruction, P. 234.

uninhibited, will lead to some creative act. Wh
appropriated or not is a matter wholly different
or instinct. It depends, I submit, upon the metho
whether individualistic or otherwise—and upon the
whether communal or otherwise. No one sets up
priation to anything that is produced by commo
anything that is of joint use. Of the former one m
of a communal hunt of the primitive folks. For an
latter the situation in a family presents a happy illus
member, it can be said without fear of being challenged,
up a right of private appropriation to the articles of the T
the articles of decoration just as no body will ever set up
exclusive ownership regarding public monuments. They are
house. But every one of the family will surely set up a right t
exclusive use of his or her clothes. They are *of the individual.* I
therefore just a question of production and use and not of impu
that a thing is appropriated. Thus the creative and the possessive a
on different levels and the methods of augmenting the former as o
diminishing the latter are bound to be different. The more of one
will not ensure the less of the latter.

With this we must close the review of Mr. Russell's book. There is much in it that can be laid at the foundation of the future reconstruction of Society. Mr. Russell deserves full credit for having emphasized the psychic basis of social life. Social reconstruction depends upon the right understanding of the relation of individual to society–a problem which has eluded the grasp of many sociologists. Mr. Russell's conception of the relation–as being of impulse to institution is, beyond doubt the truest. However, to understand this and many other problems the book touches I will strongly recommend the reader to go to the original. I have confined myself to putting Mr. Russell in his right place where I thought he was likely to be misunderstood and to guarding his uncritical readers against certain misconceptions that may pass off unnoticed. In both cases I have attempted to do my duty to Mr. Russell and to his readers.

BHIMRAO R. AMBEDKAR.

VIEWS AND MEMORANDA.

BANKS AND NATIVE STATES.

One of the most gratifying features at the present moment, is the ready response which has been received from the Native States on all questions, political, social and industrial. It has been rightly claimed that, in any changes that might be contemplated for the whole of India, the one-third of India consisting of the Native States cannot be ignored. Already, all the Native States are keenly watching the political developments in British India and in the sphere of industrial advancement also, they have shown equal alacrity or wide-awakeness. Some of them have gone in advance of British India. As the Viceroy in the Chiefs' Conference emphasised and as Mr. Findlay Shirras, the Director of Statistics, said, it behoves the Native States' Rulers to rouse themselves and their subjects towards a true realization of the great work that lies before them in the development of industries. We may presume that they have already taken stock of the existing situation; that they are keenly following the proceedings of the Industrial Commission; and that they are only awaiting the report for embarking on well-thought out schemes of industries. The whole world is putting forth frantic efforts, even from now, for the expansion of and competition in, industries, and it is up to these Native States to rise to this splendid industrial enthusiasm which has affected India and which, if unavailed of now, will not recur. Otherwise, the claim of the one-third of India to share in the various developments awaiting her will have failed of its justification.

Here, I shall deal only with one aspect of how the Native States, with their wonderful freedom and untrammelled by other considerations, can take their due share in the development of the resources of the country. We may begin with the assumption that whatever they may do or hope to do, cannot be done efficiently or quickly without having Banking institutions. It is well known that, even in the midst of war, remarkable Banking developments are taking place everywhere. New Banks are being started and a sound development of the Banking system is being undertaken by the Governments of various countries themselves. It will be known and I hope it is adequately recognised, that no great improvement in the indus-

tries of a country will take place unless there are good Banks to finance and help the industries and commerce generally. We shall therefore enquire how the Native States stand in the matter of Banks and Banking facilities.

At present there are only 3 Banks started under the patronage and with the co-operation of Native States. These are the Bank of Baroda, the Bank of Mysore, and the Sangli Bank. In the Map accompanying the Report on Banking recently issued by the Director of Statistics, what strikes one most is that while British India is somewhat studded with Head Offices and Branches of Banks—though of course, not closely or widely enough compared with other countries—the major portion of the Native States is all one huge blank and has few banks marked thereon. For the whole of India, there are only 71 Head Offices and 267 Branches including what Mr. Shirras rightly calls pigmy banks. And for the whole Native States with an area of 675, 267 Sq. miles and a population of 70 millions, there are only three head offices and about 20 branches. Certainly this is not a creditable proportion for one-third India,—even with the total Banks in India falling considerably short of our needs and being meagre and poor compared with what obtains in other countries. This is one of the saddest features which it behoves the Native State Rulers to rectify as early as possible.

Let us examine the existing Native State Banks. It is a matter for gratulation that the two Banks of Mysore and Baroda are having a fine and lusty growth under the control of two European Secretaries. The success of these two Banks is not only due to the considerable help received at the hands of the State, but also due to the able management of these two Europeans, which affords a sound reason for a close co-operation between the mercantile community of India and that of England. The Bank of Baroda was started in July 19th, 1908, and since then it is progressing fast. It was able to withstand successfully the banking crisis of 1913, and escaped injury.

The Bank of Baroda's position stands thus:

Year.	Subscribed Capital.	Paid up Capital.	Reserve Fund.	Deposits.	Dividend.
1915	20,00,000	10,00,000	4,50,000	1,04,33,848	8 %
1916	20,00,000	10,00,000	5,75,000	1,42,00,484	9 %
1917	20,00,000	10,00,000	7,00,000	1,78,27,130	10 %

Thus it will e seen that the Bank is showing an all-round development and this is a remarkable success for a bank, aged 10 years, especially with a great banking crisis crossing its life. The market price of a 50 Rs. paid up share is at about 80. The Bank has got 4 branches, 2 in Baroda State and 2 in British India. With the great expansion of business following such a well-managed institution, it has been announced that they are going to increase the capital and that a branch is to be opened in Bombay. We must congratulate H. H. the Gaekwar for having been the pioneer in starting a Native State Bank in the great times of the Swadeshi spirit. We must congratulate also the Board of Directors among whom are two prominent Bombay Merchants, Sir Vithaldas Thackersey and Hon. Mr. Lalubhai Samaldas.

The second State to embark on a Banking enterprise was the State of Mysore which under the Dewanship of Sir M. Visvesvaraya is fast marching ahead of British India as well as of Native States like Baroda and Hyderabad. Hyderabad has no laurels to lose and unfortunately never looked to her laurels as the Primier State but has allowed herself to be overtaken by smaller States. The Bank of Mysore was started in 1913 even though the failure of Banks was on, and it bespeaks much to the great courage and statesmanship of the Dewan to have gone on with the enterprise. Its position stands thus:

Year.	Subscribed Capital.	Paid up Capital.	Reserve Fund.	Deposits.	Dividend.
1915	20,00,000	10,00,000	75,000	38,00,000	6 %
1916	20,00,000	10,00,000	1,75,000	50,37,792	8 %
1917	20,00,000	10,00,000	2,75,000	61,25,000	8 %

Thus in 5 years it has progressed well. The cash turn-over exceeded 12 crores in 1917. It has got agencies all over the State and it is sure to take a great share in the development of the several schemes to which Sir Visvesvaraya has put his hands.

Sangli is a small state in the Southern Mahratta country with an area of 1112 sq. miles, a population of 227,146 and a revenue of 10 lakhs. Still under the guidance of its able Chief, a Bank was started about the end of 1916. Its subscribed capital is 2,00,000, paid up capital, 1,00,000. The State holds half the number of shares. Its

different deposits reached to 4 lakhs including the State deposit of Rs. 50,000, though there is some appreciable withdrawal now, for which no reasons have been assigned and which, I hope, is only temporary. The volume of the business, in one year, has been to the extent of 36 lakhs and its net profit comes to Rs. 10,570 or 10½% on the paid up capital. Sangli being a good mercantile centre, the bank meets a much felt want and is bound to be a success with good management. The Chief must be congratulated on this enterprise which other States might do worse than follow. Only one suggestion, I would like to make, having 21 Directors is a little too much for a Bank of this size.

Thus we have seen there are only 3 Native States having State-aided banks or banks started by their own subjects. In no other Native State is there such a bank. Only a few of them have the agencies or branches of outside banks. Certainly this is regrettable. The primier state of Hyderabad with an area of 82,698 sq. miles or ⅔ of the U. K. and with a population 13 millions or ⅓ of the U. K. has not got any bank of its own or any private bank with the Head Office in the State but has only 3 branches, 2 of the Bank of Bengal and 1 of the Bank of Bombay. On the other hand, a big well-managed and state-aided Bank with not less than 10 branches should be a great necessity for a State like Hyderabad and will confer a great boon on its people. Kashmir has 6 branches of foreign banks, like the Alliance Bank, Cox & Co., Bharat National Bank and Punjab National Bank. Indore has a branch of the Bank of Bombay; Bhopal has a Branch of the Bharat National Bank. Travancore has two branches and Cochin one, of the Bank of Madras. Likewise Rajkot, Patiala and one or two other states have branches. The state of Gwalior has got 2 branches of the Alliance Bank of Simla and 6 sub-branches of the same Bank.

Of the 675, Native States, there are about 50 big States which can have banks of their own. Instead, we see only 3 States having their own banks, 8 or 9 other States having branches of other Banks with Headquarters outside their States and in some cases out of India too. This is a most unpleasant feature and we wonder why these states which have branches of other Banks should not have thought of starting their own. As for states which have no banks, but which probably depend on private bankers, it is high time they follow the splendid example of Mysore, Baroda or even the small state

of Sangli. In this connection we must point out the regrettable and mistaken attitude and step taken by the Gwalior Durbar and the Travancore Durbar; both have lapsed from the quite obvious path of duty in front of them and have invited outside Banks to open Branches. The Baroda State started its Bank in 1908, the Mysore State in 1913, still in the year 1914, inspite of the great example of these two banks, the Gwalior Durbar somehow thought it fit to invite the Alliance Bank to open branches in its territory and gave it special concessions of which one was the fixed deposit of 20 to 30 lakhs on a low rate of interest *viz.*, 3½ per cent. It passes our comprehension what precluded the Durbar from asking its own subjects to start a bank and to give them the same concessions. In this respect, we must say with regret the Gwalior Durbar has failed of its subjects. Gwalior has taken great strides in the matter of industrial development, has started new industries and has outlined some programmes, too. It is holding exhibitions. Still this drawback will affect its schemes and we doubt whether all these schemes of industrial development will benefit its own subjects for lack of good and assured banking facilities. We have no complaint against the Alliance Bank as such, but there is the general complaint against all the Presidency Banks and the Exchange Banks that they don't very much aid in the industrial development of the country and if they do at all, they do not help Indian manufacturers; that they are solely concerned in financing the import and export trade—import of manufactured things and export of precious raw materials; that they do not help the small trader and manufacturer; and above all that the branches attract deposits to be used outside. This last point is one of great importance and cannot be too often insisted upon. Now the Alliance Bank is more or less an Exchange Bank, and we are surprised that the Durbar should have entrusted the industrial destiny of the State to an outside bank. It was open to the Durbar to have a State Bank partly subscribed to by the State and partly by the people and to have given all these splendid concessions which will enrich and fructify in the pockets of the people. It is no use crying over spilt milk and it is not too late to mend the situation. It is still open to the Durbar to start a bank, if necessary, under the managership of a European—though I do not hold Indians will not make good managers as there are already successful Indian-managed Banks like the Central Bank of India, Indian Bank and some Upper India Banks—and with a good Board of Indian Directors composed of even big outside merchants just as the Bank of Baroda has rightly got two Bombay merchants on its Board. Another State which

has proved a *laggard* in this matter, though it is very much advanced in other respects, and which has so to say, moved "towards the tail," is the State of Travancore. In a recent Administration Report it is stated that the State has given certain concessions to the Bank of Madras to open a Branch at Trivandrum.

Without tiring the reader by giving the area, income and value of commerce and trade of the different States, I shall say that the following States can start Banks or help actively in the starting of them. They are, in the order of importance Hyderabad, Kashmir, Gwalior, Travancore, Indore, Jaipur, Jodhpur, Bikanir (the home of bankers) Cochin, Alwar, Bhopal, Bhavanagar, Kolhapur, Junagadh, Navanagar, Cutch, Patiala, Cooch Bihar etc., and many other States. Lest any one should be surprised at this large order for banks, I shall point out that in the United Kingdom there are 9000 offices of Joint Stock Banks. One thing we may be sure in the Banks started by Native States, and that is, we will not have such abnormalities as the Solar Bank, Universal Bank, Bank of World or some Samavaya with an authorised Capital ranging from 2 crores to 30 crores (rivalling the London City and Midland Bank) and with a ludicrous paid up capital of 8000 Rs. to 50,000 Rs. or one lakh at the most. Such things lacking in sense of proportion will not be possible in Native States and will receive a short shrift, so to say. It may be added that banks are a very good investment for shareholders and that very few of the old Banks in England and even in India, pay less than 12% dividend.

I shall conclude this with only a few extracts from the *Statist* and *Capital*. The *Statist* which is somewhat friendly to Indian aspirations, recently had two or three articles on "Indian Banking" and it wrote that "while to pick out the most urgent necessity would be difficult, it is easy and safe to say that India is in very great need of a good Banking system. * * * * But these (the present) banks have each an exceedingly small capital, considering the magnitude of the country and the vastness of the population. * * * * The whole staff, however, ought not to consist of Europeans—it is one of the great faults of the existing banking system in India. There ought to be employed a large number of natives." Referring to the Tata Industrial Bank, it said, "India is a country of vast extent, and one bank, however able are those who control it, and however ample is the capital they dispose of, they cannot fill the void. * * * * That being so, it clearly is necessary to establish people's banks in India.

* * * * The Indian Civil service is unwilling to give attention to people's banks." Shall we add the Native States also? That sprightly and usually fair minded paper, *Capital*, wrote two years ago in its characteristic style, "No Native State should be without its own Bank, and efficient departments of agriculture and industries; and the establishment of machinery of this nature excels in importance even a decision as to the precise number of guns to be fired when Native Rulers make their bow at Simla."

T. S. KRISHNAMURTHI.

INCOME TAXATION IN BRITISH INDIA.

The first general income tax for British India was levied in the year 1860 at the rate of 2 p. c. on incomes between Rs. 200 and Rs. 500. The tax was levied on all incomes exceeding Rs. 200 per annum arising from property, professions, trades and offices and included incomes derived from land. This Act was altogether dropped in 1865. Direct taxation was then levied from time to time, except for a total abolition between 1873 and 1878, in the form of a certificate, license or income tax and no less than 23 Acts on the subject were passed between 1860 and 1886 A. D.

The first Act, which made the income tax a permanent part of the Indian fiscal system, was Act II of 1886. In 1882 all the import duties had been abolished and none was re-imposed till 1894 except on petroleum in 1888. At the time of considering the Act of 1886 it was said by the then Viceroy that it might probably be shown by an actual calculation that the gain that the wealthier classes had derived from the remission of the import duties would compensate them in a considerable degree for the income tax then proposed to be levied. When War was declared in August 1914, it was this Act of 1886 as slightly amended in 1903 that was in force and continued so without any further change till 31st March, 1916. It taxed incomes above Rs. 1000, except those derived from agriculture, at the rate of 4 pies in the Rupee upto Rs. 2,000 and at 5 pies above that amount *i. e.* about 2.8 p. c. of the income. In the case of salaries, securities and company profits it was collected by deductions at the source, while the incomes from other sources were assessed without a declaration from the assessee.

In 1915 the Indian Government did not raise any revenue by additional taxation, but met the financial exigencies of the war by temporary borrowings. War continued, however, indefinitely longer and more money had to be raised. In 1916 this was done from the Customs on Imports and Exports, the excise duties on liquors and salt and the increased Income tax. The Act V of 1916 amended the rates of the Act of 1886 so as to accept the principle of graduation on an extended scale. It levied the tax at 6 pies in the rupee on incomes between Rs. 5,000 and Rs. 10,000, at 9 pies from Rs. 10,000 to Rs. 25,000 and at 12 pies or one anna in the Rupee (6.25 p. c.) on incomes above Rs. 25,000 and on incomes from securities or company profits, at the same time providing for corresponding refunds on these from the maximum rate when the total income of an assessee was below Rs. 25,000.

In 1917 further taxation was deemed necessary and along with the increase in the import duty on cotton piece-goods from 3½ per cent to 7½ per cent and in the railway passenger fares and freights, the Income Tax was supplemented by a super-tax on incomes above Rs. 50,000 at the following rates :—

For every rupee in excess of Rs. 50,000 upto Rs. 1 lakh,		1 anna in the rupee
,,	Rs. 1 lakh upto Rs. 1½ lakh	1½ ,,
,,	,, 1½ lakhs upto Rs. 2 lakhs	2 ,,
,,	,, 2 lakhs upto Rs. 2½ lakhs	2½ ,,
,,	,, 2½ lakhs and above	3 ,,

The Income Tax Act has been recently amended and consolidated in March 1918 so as to improve its methods of assessment in order to prevent escapements or leakage and to effectually enforce graduation and the levy of super-tax. Returns of all incomes above Rs. 2,000 on the declaration of an assessee are now made compulsory on pain of a day-to-day fine. For false declarations, there is provided a double penal assessment or a criminal prosecution entailing imprisonment or fine. Perjury and contempt before the Income Tax Collector are liable to be punished as criminal offences with imprisonment or fine or both.

The financial effect of the Income and Super Tax Acts of 1916 and 1917 will be seen from the following table :—

In £ Sterling.

Year.	Income and Super Tax.		Total Revenue.	
	Receipts.	Expenditure.	Excluding Services.	Including Services.
1915–16 ...	2,090,109	34,426	52,866,375	84,413,537
1916–17 ...	3,772,967	37,112	61,107,470	98,050,430
1917–18 ... (revised estimates).	6,075,800	42,300	67,082,200	109,924,300
1918–19 ... (budget).	6,333,200	51,500	67,085,930	109,190,300

The budgeted increase for 1916–17 was £ 900,000 while the increase actually realised was over £ 1,700,000. The budgeted increase for 1917-18 was £ 1,350,000 on account of super-tax while the revised estimates of increase in both the income and super taxes has been £ 2,300,000 though the super-tax fell short by about £ 70,000. This increase is said to be due to larger profits as a result of war conditions.

The finance member of the Bombay Presidency in his provincial budget speech for 1918-19 states that the increase in income tax realisation is partly due to more accurate assessments but the larger part is on account of trade prosperity due to war and that if account is taken of the super-tax which of course is purely Imperial (*i. e.*, Indian as opposed to Provincial), the total taxation on incomes other than those derived from agriculture is beginning to come within measurable distance of the net total under land revenue.

In 1901 about 47 per cent of the Income tax collections of the Bombay Presidency, more than 43 per cent of Bengal and about 20

per cent of the Madras Presidency were paid by the Presidency towns only. In 1914–15 and 1915–16 *i. e.* the years just before the new increase of rates in 1916–17, 69 per cent of the Bombay Presidency collections were paid by the City of Bombay alone. The taxes on incomes are therefore mainly borne by commercial cities and a few large towns. The increased income tax coupled with the large increase in import duties will therefore work rather unequally so far as incomes under Rs. 5,000 are concerned as no abatements for their smallness or for the dependents in a family are provided for and as there is a general rise in prices, much more markedly in Presidency towns. The English Income tax law has during the war lowered the limit of exemption from £160 to £130 and correspondingly the abatements on incomes below £700 but at the same time has increased the abatement on each child from £10 to £25.

The history of the consolidating Indian Income Tax Act of 1918 shows that there are certain questions, which, though raised, have been shelved and the Act has been passed into law in a rather hurried manner to meet the financial exigency of war legislation. The Select Committee appointed to consider the provisions of the Bill has deemed it outside the scope of its functions to examine suggestions as to the amendment of the graduated rates already in force such as were submitted, for example, by the Bengal Chamber of Commerce and it thought that such amendment should be a matter to be taken up on a future occasion upon a budgetary programme. The question of abatements on small incomes below Rs. 5,000 and on the number of dependents may perhaps have been shelved on the same grounds. The amendments as to joint Hindu families being dealt with like the families of other communities and as to the co-option of honorary assessors with the Income Tax Collector in assessing incomes have also been shelved for a reference to the provincial Governments. In addition to these, the question of voluntary declarations for small incomes below Rs. 5,000, suitable provisions for refunds from the normal rate of one anna taxation, the principle of differentiation of incomes, the relaxation of penalties of imprisonment for income tax offences that may at

present be treated as ordinary crimes under the general criminal law, the ever complex question of the incidence of the tax and the consequent change in the graduation of rates, the inclusion of large agricultural incomes—these are some, among the many, necessary questions which await a solution at the hands of the practical economist and the future legislator on the subject.

On the administrative side, the working of the Act requires a careful handling of the too penal and inquisitorial and too bureaucratic machinery. The Income Tax Collectors who belong to the general revenue department, and mostly of the provincial service, have yet to awaken and train the tax conscience of a timid people by a sympathetic administration of the tax. Direct taxation was, it is sometimes said, well-known to the pre-British Indian governments and the imposts varied in names and conditions. This does not seem to be true and a regular system of direct taxation for non-agricultural families does not seem to have existed except for a very insignificant house-tax. The unpopular but rarely imposed capitation tax and the occasional contributions levied by a king in times of urgent state necessity were perhaps the only direct imposts on non-agriculturists while the tyrranous exactions of an oppressive ruler were successfully resisted in ordinary times by the conjoint body of traders. The average Indian mind is conservative enough and very reluctant to divulge his income and the tax conscience, therefore, requires a careful handling. The figures given above regarding the expenditure on realisations do not represent the whole cost as they do not seem to include the larger salaries of the Collectors but merely represent the salaries of their subordinates where they exist as a separate department. It was said by an Hon'ble Member of the Legislative Council even in 1886 that the Collector, to obtain the necessary information in the absence of a return of income from an assessee, must employ agency, untrustworthy and corrupt. The expenditure hitherto incurred after this special agency would seem to show what the agency could be. The importance of employing a proper agency on suitable salaries and under efficient controlling checks so as to prevent bribery, extortion or oppression is an item which will require careful super-

vision and tact in the administration of the tax till the people get trained to declarations of income for larger incomes and are induced to make voluntary declarations by a system of liberal abatements for smallness as well as for dependents in the case of smaller incomes.

The last triennial reports of the Indian provinces on the administration of the tax ending with March 1917 do not all seem to be yet available to the general public while the statistics for 1917–18 will not be out till after July next. It will then be more convenient to consider the working of the new rates while a detailed consideration of the provisions of the new Act from the administrative standpoint would be another branch of study.

MANEKLAL H. VAKIL.

FACTS AND STATISTICS.

Incidence of Taxation—The incidence of Taxation per head in India, is according to Government calculations.

	1915-16	1916-17	1917-18.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
excluding Land Revenue	1—8—6	1-14—9	2—0—0
including Land Revenue	2-13—0	3—2—6	3—4—3

For the purpose of Calculating the burden of Taxation the figures of population in the three years referred to above have been based on the Census 1911, an annual increase of ½ per cent. being assumed.

Capital Outlay on Irrigation—The total capital outlay on Major Irrigation Works up to 31st March 1917 is Rs. 65,06,19,390 and the net earnings (*i. e.*, gross receipts less working expenses) in 1915-16 gave a return of 7·666 per cent. on the mean of the capital expenditure at the beginning and end of the year.

Loans raised in India—The amount of debt raised in India by Government, chargeable on the revenue of India and outstanding on 31st March 1917 was Rs. 1,67,78,44,427. The rate of interest varies from 5½ per cent to 3 per cent.

Loans raised in England—The amount of debt raised in England, chargeable on the revenue of India and outstanding on 30th September 1917 was £173,652,620 *i. e.* Rs. 2,60,47,89,30. The rate of interest varies from 2½ per cent. to 4½ per cent.

The condition of Industrial concerns in Bombay in the year 1916-17—The number of **Cotton Mills** working in the Presidency increased by five. The output of woven goods showed a substantial rise, but that of yarn decreased, owing, to some extent at least, to finer counts having been spun. The year was one of exceptional prosperity for the weaving industry. New markets opened owing to the curtailment of the import of peace-goods from Europe and the success of the British forces in Mesopotamia and in German East Africa. The revenue collected under the Cotton Duties Act was lower than last year, but this was due mainly to assessment work not being completed in time through inadequacy of establishment. The effect of the war was felt in the high prices and shortage of materials from abroad but lessened competition and new markets more than counterbalanced any difficulties of this sort and the cotton mill industry enjoyed a year of exceptional prosperity. The smaller industries in the Presidency were in many cases adversely affected by the war. The **match making industry** was seriously handicapped by the impossibility of obtaining the necessary chemicals and of withstanding Japanese competition in it present state of development and the factories at Belgaum, Karad, and Dharwar did notwork at all. The **glass factory** at Talegaon turned out work valued at Rs. 20,100. **Flour and oil mills** did well generally and the ginning and pressing factories had a very good year, specially in Gujarat and Dharwar, and rose in number by fifty-four. A few industries continued to benefit by the war, as, for instance, the **glass bangle factory** at Kapadwanj and some **soap factories**. On the other hand, the **handloom weaving industry** was seriously affected by the high prices of yarn and dyes, and the **copper and brass pot and gold and silver thread industries** by the high prices of their raw material. The scarcity and dearness of dyes interfered with the **dyeing industry** everywhere and with a number of other minor industries such as lacquer work and hand printing. The **paper mills** in Poona District worked at full pressure and turned out paper valued at over Rs. 2 lakhs.

Budget of the Government of India

	Accounts, 1916–1917.	Budget Estimate, 1917–1918.	Revised Estimate, 1917–1918.	Budget Estimate, 1918–1919.
	£	£	£	£
Revenue—				
Principal Heads of Revenue–				
Land Revenue	22,041,265	22,218,200	22,191,100	22,358,500
Opium	3,160,005	3,389,300	3,068,500	3,191,800
Salt	4,826,260	3,972,900	5,432,800	3,492,200
Stamps	5,776,696	5,952,100	5,745,000	5,928,000
Excise	9,215,899	9,328,200	10,050,100	10,373,700
Customs	8,659,182	9,394,800	11,127,900	10,714,400
Income Tax	3,772,967	5,129,300	6,075,800	6,313,200
Other Heads	3,655,196	3,465,600	3,861,300	3,870,700
TOTAL PRINCIPAL HEADS...	61,107,470	62,850,400	67,552,500	66,242,500
Interest	1,136,504	2,095,700	2,245,300	3,552,600
Posts and Telegraphs ...	4,174,607	4,345,700	4,492,100	4,782,800
Mint	689,866	139,100	530,700	376,000
Receipts by Civil Departments	1,739,713	1,706,300	1,920,100	1,956,100
Miscellaneous...	847,530	743,000	2,599,900	1,295,200
Railways : Net Receipts ...	21,313,797	20,253,000	24,051,600	22,983,700
Irrigation	5,155,624	5,125,300	5,188,000	5,320,400
Other Public Works... ...	309,373	285,200	318,900	304,900
Military Receipts	1,575,946	1,327,100	1,502,200	1,532,700
TOTAL REVENUE...	98,050,430	98,870,800	110,401,300	108,346,900

for 1918–19 at a glance.

	Accounts, 1916-1917.	Budget Estimate, 1917-1918.	Revised Estimate, 1917-1918.	Budget Estimate, 1918-1919.
Expenditure—	£	£	£	£
Direct Demands on the Revenues...	9,328,668	10,027,500	9,919,000	10,438,300
Interest	1,174,864	6,832,800	7,797,500	7,784,300
Posts and Telegraphs ...	3,441,387	3,601,900	3,599,000	3,931,400
Mint	167,411	108,600	179,800	170,000
Salaries and Expenses of Civil Departments ...	19,081,230	21,089,800	20,915,100	22,993,000
Miscellaneous Civil Charges	5,414,272	5,419,200	5,894,800	5,644,700
Famine Relief and Insurance	1,000,000	1,000,000	1,000,000	1,000,000
Railways: Interest and Miscellaneous Charges ...	13,831,922	14,147,400	13,876,800	13,782,000
Irrigation	3,549,912	3,834,100	3,742,800	3,928,700
Other Public Works ...	4,618,535	5,544,800	5,110,500	5,945,600
Military Services	26,566,757	27,227,100	30,284,700	30,532,700
TOTAL EXPENDITURE, IMPERIAL AND PROVINCIAL.	88,174,958	98,833,200	102,320,000	106,150,700
Add—Provincial Surpluses: that is, portion of allotments to Provincial Governments not spent by them in the year	2,397,302	240,300	2,322,900	351,400
Deduct—Provincial Deficits: that is, portion of Provincial Expenditure defrayed from Provincial Balances.	...	*338,100*	*66,700*	*446,700*
TOTAL EXPENDITURE CHARGED TO REVENUE	90,572,260	98,735,400	104,576,200	106,055,400
SURPLUS ...	7,478,170	135,400	5,825,100	2,291,500
TOTAL ...	98,050,430	98,870,800	110,401,300	108,346,900

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VOL. I.] JUNE, 1918. [No. II.

JOURNAL

OF THE

INDIAN ECONOMIC SOCIETY

FINANCIAL CONTROL IN THE REFORM SCHEME.

The constitutional theory of legislation and administration in India has so long been that their control must be entirely in the hands of a Government which will not be in any way responsible to the people of this country owing to its ultimate, if nominal, responsiblity to the British Parliament. The electors in Great Britain, through their Parliament, are supposed to exercise their functions of trusteeship for the good of India, by supervising the work of the servants who are entrusted with the task of Indian Administration. The onerous responsibility for the maintenance of peace and order and for the beneficent administration of affairs in the country, it is believed, cannot be transferred to the people of India, owing to their unfitness to bear it; and the policy of Great Britain must be, it is stated, to associate the people more and more in the work of administration, till at length, in the fullness of time, they may be trusted with self-governing institutions.

This is the principle on which Indian legislatures have been developed; Indians have been appointed to places on the Executive councils; and the nominated and elected respresentatives of the people are allowed to participate in the work of legislation. Government will seek the people's advice, solicit public criticism of its measures and will associate in a slowly increasing decree popular representatives in legislation and administration. But the final decision must lie in the hands of Government which is not directly amenable to popular control. Those who have been pressing for constitutional reforms in India have, therefore, been urging the transference of control to the hands of the people to be exercised through their representatives in the legislatures.

In all advanced countries, popular control over the executive Government is more or less complete, and is exercised through popular legislatures. One of the chief functions of law-making bodies is to control state finance, and to determine how funds required for carrying on administration and for the performance of the other duties of the state, shall be raised and expended. Indian legislatures can criticise, advice, recommend, but they have no power to control. Members of legislative councils discuss provincial and imperial budgets; but they are not allowed to vote on them. With the standing official majority behind them, the executive can get the supreme legislature to pass any financial measure it chooses ; while provincial Governments which do not submit their budgets to the vote of their legislatures, have had no powers of independent taxation or borrowing. The Morley—Minto reforms gave elected representatives of the people only a larger latitude to discuss and criticise financial policy and measures, and an opportunity to exercise whatever influence they could, indirectly.

To improve this unsatisfactory system, certain proposals were made by the leaders of the people, and they were embodied in the Congress-League-Scheme. They were intended to lodge financial control in the hands of legislatures having a substantial majority of elected members. The proposals were carefully and critically examined by Mr. Montagu and Lord Chelmsford, and discarded as impracticable. So far as financial control was concerned, the Congress-League-Scheme provided that the Indian Legislatures should contain a majority of elected members to the extent of four-fifths, and that they should have the power to deal with questions of raising loans, imposing and altering taxation and to vote the budgets. Conscious that they could not demand complete popular control over the whole Government at one bound, the framers of the scheme did not propose that the whole of the executive should be elected and be responsible to the legislature, and they provided for an irremovable and, therefore, irresponsible executive, in order to build upon existing foundations and to give no ground for the charge that their suggestions were revolutionary.

The fundamental idea with which Mr. Montagu and Lord Chelmsford started was, however, that the goal of Indian constitutional advance was the attainment of responsible government, in the sense that, when the reforms were completed the legislatures should have the power to turn out ministers if they did not enjoy the

confidence of a majority of their members. This goal of responsible government was to be reached by steady steps, and the journey was to begin in the provincial governments, the Government of India being left untouched to the last. The exercise of the power of responsible government would require training and, therefore, that power was to be granted over only a portion of government. Provincial Legislatures would be allowed to control the administration of certain departments, the minister or ministers in charge of which would be responsible to the Legislative Councils. The expenditure on these separated departments alone would be completely controlled by the legislatures, that on the 'reserved' departments being excluded from their purview. In framing the budget, the executive government including the responsible minister, will first set aside the amount of provincial contribution to the Imperial Exchequer and then provide for the expenditure on reserved services. The balance of the provincial revenue will be available for the separated departments. If that is not found to be sufficient, the minister may propose additional taxation to be voted by the Council.

If the premises involved in the above reasoning are accepted, the conclusions follow according to strict logic. It must, however, be remembered that the object of the scheme formulated by Indian leaders was mainly to bring finance, among other things, under popular control, and the Montagu-Chelmsford proposals must be tested by that standard. The question for consideration is, how far do the proposals vest financial control in the hands of the legislatures? The report of the Secretary of State and the Viceroy argues:- "Finance is the vehicle of government, and unless the executive can raise money for its needs, and lay it out as it pleases, it cannot continue responsible for the administration. The power to refuse a vote or to refuse to grant the resources required for it, paralyses the Government's hands. In the hands of a legislature which practically chooses its own executive, such power is natural and appropriate..... ...But so long as the executive remains nominated and irremovable, it must be in a position to secure the money necessary for its essential purposes. The Congress-League proposal is compatible with parliamentary government, but fundamentally incompatible with the executive which retains any responsibility towards the Secretary of State and Parliament."

We do not propose here to examine the arguments with which the Congress-League-Scheme is disposed of by the authors of the

report as unacceptable. We shall only try to show what financial power is given to the provincial legislatures under the Montagu-Chelmsford scheme. Having created a division among the provincial services, and transferred a few departments to ministers who would be responsible to the legislatures, the authors of the report had to provide means to secure supplies for the reserved services. They, therefore, propose that the funds necessary for maintaining the efficient administration of reserved subjects, will be first allotted in the budget to be framed by the executive government as a whole, the balance being placed at the disposal of the responsible minister, who will propose additional taxation if he finds that it is necessary for financing the separated departments in his charge. The budget so framed will be laid before the Council which will vote upon the allotments by resolutions. If these allotments are rejected or modified by the Council, the Governor has the power to certify that the original allotments are necessary for the discharge of his responsibilities and to have them restored, the resolutions of the Council in that behalf notwithstanding.

Let us first see if there is any power given to the Ministers in the *framing* of the Budget, which is the very first stage of annual financial business in logical order. Everything as regards efficiency and economy in public expenditure depends upon the preparation of the estimates. Once they are framed, the changes made by the timid non-expert members of a legislative body are generally small. The framers of the scheme say that: " there are questions upon which the functions of the two portions of the Government will touch or overlap, such, for instance, as decisions on the Budget or on many matters of administration. On these questions in case of a difference of opinion between the ministers and the executive council, it will be the Governor who decides." This means that the Budget will be *considered* by the executive Government including the additional members acting together, in which the predominant voice will *not* be Indian, the decision on a particular subject being left to that part of the Government which is responsible for it. If there is difference of opinion between the Minsiters and the executive council it is the Governor's voice that will prevail. One can imagine what impress the estimates will have when they are framed under these circumstances. We cannot help observing whether an executive divided against itself on such a fundamental question as that of framing and evolving a budget can ever discharge its duties satisfactorily or can ever promote

the interests of efficiency. Political contrivances are to be adapted, as Burke observed so pithily, not to human reason but to human nature. In the matter of this separation of the reserved and transferred departments the framers of the scheme have satisfied neither the demands of reasoning nor those of nature.

With the budget having an initial start in favour of the reserved subjects, the legislative council can but exercise only an imperfect control. To the extent of the supplies earmarked for reserved services, the legislature is powerless. The amount of these will depend upon the number and character of the services retained under the control of the executive council. If full provincial autonomy is not to be secured–and the authors of the scheme are inclined not to grant it all at once, but wish it to be conceded by stages to be steadily covered in the course of a number of years–we would suggest that people should insist that the reserved departments should be very few, especially in advanced provinces like Bombay. Then the legislature may bring itself for a time to regard the allotments to be made, to the reserved services without its control as something of the nature of the fixed contribution annually earmarked for the benefit of the central government, and content itself with the control over expenditure on the separated departments. There is no denying the fact that this is only partial and indequate control over provincial finance, and the framers of the reform scheme make no secret of their idea that 'the Governor in Council must be empowered to obtain the supply which he declares to be necessary for the discharge of his responsibilities' and that, without prolonged tutelage and training, the legislature cannot be entrusted with control over the more important departments along with services like sanitation, public works and primary and secondary education which may be left to its unfettered management.

We do not think it will be wise to reject the proposed scheme *in toto* because it does not come up to popular expectations in certain important particulars. We do not, at the same time, feel that it should be accepted entirely in the form in which it is presented to the country. It is possible, without violating the fundamental principles on which the project is based, to secure modifications designed to transfer larger financial 'control into the hands of the legislatures. The statute may well lay down the lines which will mark off the reserved from the transferred departments rather than leave the

decision to the proposed committee; and in the more advanced provinces, the reserved services may not be many. The attempt should be made to secure responsible Government over as wide an area as possible, and the necessity of maintaining law and order should be the only governing consideration in excluding services from popular control in the provincial Councils. We are afraid too much is being made of the alleged unfitness of the people for responsible Government, and the experience of the work done by Indians in the executive and legislative councils during the last nine years does not lend support to the apprehensions entertained on that score.

It may indeed true that the ministers will be able to exercise some measure of influence on the members of the executive council in restraining their spending proclivities with reference to the reserved departments. It may also be true that the executive council can not go on piling up expenditure on those services indefinitely; and that when a certain limit is reached, further additions will prove unjustifiable and difficult. The resolutions that the legislature will pass from time to time, will also have a restraining effect upon them, as also the difficulty of the Governor's frequent resort to the certificate. All the same, the scheme as it is, it must be frankly stated, confers very little power of financial control on the legislatures. And unless this serious defect is removed and definite provision of some sort is made in the statute in that behalf, at least in the case of the advanced provinces, the scheme cannot be expected to receive support at the hands of the people whose aspirations will remain sadly unsatisfied.

It is seriously argued by some that the report confers full power of taxation on the provincial legislatures. We confess we are unable to endorse this view as the report itself does not appear to be quite clear on the point. What it says is that "If such residue (after setting apart contribution to the Government of India and allotments for the reserved subjects) is not sufficient, it is open to the ministers to suggest extra taxation either within the *schedule of permissible provincial taxation* or by obtaining the sanction of the Government of India to some tax not included in the schedule". This means that the power of the provincial legislature will be limited to the schedule which is to be framed in consultation with the provincial Governments. And even if a tax falls within the schedule, the Bill

imposing it has to be forwarded to the Government of India in sufficient time to enable that Government to satisfy itself that the proposal is not open to objection as trenching upon its own field of taxation (para 210). Besides, the Grand Committee will secure to the Executive Government the passing of such legislation as it considers absolutely necessary in respect of the reserved services. Moverover, as regards legislation on transferred subjects or non-certificated legislation on reserved subjects, it would be open to any member of the executive council to challenge the whole Bill or any clause of it on its first introduction, or any amendment, as soon as such amendment is moved, on the ground that the Bill, clause or amendment impinges on the reserved sphere. The question would then be referred to the Governor whose decision would be final. All these conditions read together appear to lead to the conclusion that the power of taxation given to the legislative councils, though in extremely favourable cases it may extend to the whole field, is hedged round with so many limitations.

Assuming that the legislature's power of taxation will be allowed to range freely over all departments, transferred and reserved, the position of the ministers will not be happy, and they will always find themselves in an awkward situation. Among items of provincial income, there are many which are not regarded as taxes but merely as revenue in the form of rent, fees or prices. As the legislature is to control the whole of provincial taxation, it must have the power of regulating all these sources of revenue, and thus indirectly controlling even the reserved departments. But as some of these sources of revenue are connected with the reserved departments, the interference of the legislature with their administration may not be allowed. Land revenue, for instance, is looked upon as rent received by the state, and the proposal to reduce or enhance it may be disallowed on the ground that it affect tenures. The report says in this connection :—" Nor should we expect the transfer of matters which vitally affect the well-being of the masses who may not be adequately represented in the new Councils, such for example as questions of land revenue or tenant rights". If assessment of land revenue is reserved in order to safeguard the interests of the masses, is it to be supposed that the legislature which is given the power of provincial taxation, is not to be allowed to raise or reduce land assessment? We hold that land revenue is a tax on agricultural incomes, and must be amenable to the control of the legislature.

Otherwise, the power of taxation is illusory. This is, no doubt, an old question but it assumes a new and increased importance in connection with reforms. If land revenue is not to be touched, half of the provincial revenue is at once taken out of the control of the legislature. It must be conceded that pledges given to tenants, landlords and cultivators must be respected and cannot be allowed to be interfered with lightly. But if the right of taxation is granted, it must be conceded with the full powers it involves.

As has been pointed out above, the position of the minister under the scheme is extremely difficult. While the executive council comfortably gets all the money it wants for the reserved departments, and is not responsible to the people for their expenditure and management, the poor minister is to do his best with the residue of provincial income and to raise additional money by increased taxation and thus to be indirectly responsible also for the expenditure of the reserved departments, because it is the latter that may drive him to fresh impositions. Why should the minister be responsible even indirectly for expenditure which he and the people's representatives cannot regulate? Even this inconvenience may be tolerated if the legislature be allowed to control all sources of provincial revenue including rents, fees, prices and taxes. And we presume that that is what is in the minds of the framers of the reform proposals. The point, however, requires to be made clear, and the legislature's complete control over taxation must be placed beyond all doubt.

We do not propose to notice the reforms proposed in connection with the separation of provincial and imperial finance and the large measure of independence conferred on provincial governments. This is a welcome concession to popular demands, and the authors of the scheme must be congratulated on it. But in the Government of India, the *status quo* is maintained, except that there is an elected majority in the Viceregal council and members are given greater opportunities to criticise and indirectly influence the executive. No financial power is conferred on the central legislature, and this part of the reform scheme is extremely unsatisfactory. All imperial taxation, the framing of the tariff, railway policy, currency, banking and other matters connected with the economic development of the country, are left in the hands of the executive. This is the most serious drawback in the scheme affecting the central government,

and robs the proposals of reform of most of their value. A modification of the scheme with a view to subject imperial finances to the control of the people's representatives is imperatively necessary. National central finance must be directed and controlled by a popular national legislature; and we cannot bring ourselves to accept the principle of the Secretary of State and the Viceroy that this reform must wait till full provincial autonomy is evolved. We want simultaneous progress in the central government and the provincial governments, and, from the larger national point of view, financial control in the central legislature is of greater importance and urgency than that in the provincial councils. Besides, we are of opinion that leaving Government of India wholly irresponsible to popular opinion is incompatible with the announcement of August 20, 1917.

To sum up, provincial legislatures are excluded from financial control over a wide area of government by the creation of reserved services which have a preferential claim on provincial revenues. As the head of the executive government can always insist on the allotments proposed in the budgets being maintained intact, the legislature's financial control is only partial. There is no reason, however, why the number of reserved departments should not be very few, and the funds withdrawn from popular control be limited to a small amount. Though taxation for provincial purposes is a transferred subject, still it is not clear how far this power will extend and whether it will cover even the reserved subjects. Solong as the reserved services receive what they want, the executive government will not bother itself as to what the legislature does in the matter of raising, reducing or levying extra taxation. We would like to have it made clear that the legislature's taxing power will not be questioned or hampered even with reference to the reserved departments, and that it will have full liberty to deal with land revenue, forests, stamps, regisration fees and other source of income. The 'Reform' of the provincial governments is full of possibilities, though it is inadequate as actually presented. In the Government of India there is not even the pretence of popular control over national finance, and this part of the scheme, therefore, needs urgent rivision.

SMALL HOLDINGS IN INDIA AND THEIR REMEDIES.

SUMMARY.

I. Importance of agriculture. II. Small holdings in India and their remedies. III Consolidation. IV. Enlargement. V. Critique of the remedies.

I.

A study of the economic ways of getting a living will ever remain important. These ways generally take the form of industries or services. Confining ourselves to industries, they may be divided into primary and secondary. The primary industries are concerned with extracting useful material from the earth, the soil or water and take the form of hunting, fishing, farming, stock-raising, lumbering and mining. These primary or extractive industries are fundamental in two ways: (1) They extract from the physical world useful materials which become the original sources of man's subsistence. (2) They provide raw materials for the secondary or manufacturing industries, for, manufactures, in the language of Dr. Franklin, are simply, "substance metamorphosed". From a national point of view as well, the importance of primary industries is beyond question. But important as are the primary industries, farming is by far the most important of them all. It is the most ancient and abiding of all industries, primary or secondary: while the fact that it is concerned with the production of food is enough to make its problems demand our most serious thought. But when a country, like India, depends almost wholly upon farming its importance cannot be exaggerated. The problems of agricultural economy dealing directly with agricultural production are what to produce, the proper proportion of the factors of production, the size of holdings, the tenures of land etc. In this paper it is attempted to deal only with the problem of the size of holdings as it affects the productivity of agriculture.

II.

It may be said that some countries are predominantly countries of small holdings while in others it is the large holdings that prevail. According to Adam Smith it is the adoption of the law of primogeniture chiefly due to the exigencies of a military life that leads to the creation and preservation of large holdings. While it is the adoption of the law of equal sub-division necessitated by the comparatively peaceful career of a nation that gives rise to small holdings. He says:—

"When land like moveables, is considered as the means only of subsistence and enjoyment, the natural law of succession divides it like them among all the children of the family; of all of whom the subsistence and enjoyment may be supposed equally dear to the father, [thus tending to have small holdings]. But when land was considered as the means, not of subsistence merely, but of power and protection, it was thought better that it should descend undivided to one. In those disorderly times.....to divide it was to ruin it, and to expose every part of it to be oppressed and swallowed up by it neighbours. The law of primogeniture, therefore came to take place in the succession of landed estates [thus tending to preserve large holdings]."*

England is, therefore, a country of large holdings. Post-Revolutionary France is a country of small holdings. So are Holland and Denmark. Turning to India, we find holdings of the following size held separate and direct for the years 1896-97 and 1900-01 :—

Average area of holdings in acres.

Years.	Assam.	Bombay.	Central Provinces.	Madras.
1896-97	3·37	24·07	17	7
1900-01	3·02	23·9	48	7

Data, more recent, more exact, though from more restricted area, is available from the Baroda State.† Statistics of land holdings in the State are summarized in bighas in the following table. ‡

* Wealth of Nations. Bk. III. Ch. II.

† Report of the Committee appointed to make proposals on the Consolidation of Small and Scattered holdings in the Baroda State, 1917. This will be throughout refered to as R. B. C.

‡ ibid, P. 3.

Name of the District.	Total Agricultural land.	Survey No. into which it is divided.	Number of Khatedars.	Average under Khatedar.	Average area per Survey No.
Baroda ...	17,17,319	4,30,601	107,638	15-19—2	4
Kadi ...	25,13,982	5,89,687	141,145	17-16—5	4¼
Naosari ...	10,46,176	2,16,748	52,652	19-17—8	4
Amreli ...	9,72,040	55,635	17,214	36—9—7	3¼
Total ...	82,49,517	12,92,671	318,649	27-10-10	3⅛

(8 bighas=5 acres).

Another investigation conducted by Dr. H. H. Mann and his colleagues indicates more specifically the fact of small holdings in the village of Pimpala Saudagar near Poona. The size of holdings in that village is indicated by the table below.*

	Over 20 acres.	10 to 20 acres.	5 to 10 acres.	3 to 5 acres.	2 to 3 acres.	1 to 2 acres.	30 to 40 gunthas.	20 to 30 gunthas.	15 to 20 gunthas.	10 to 15 gunthas.	5 to 10 gunthas.	Below 5 gunthas.
Number of plots of each size ...	1	7	21	25	67	164	75	136	71	57	59	25

(40 Gunthas=1 acre).

In this table the modal holding is between 1 and 2 acres. A mode is a statistical average indicating the point of largest frequency in an array of instances.

From these tables it can be easily seen that the average size of holdings varies from 25·9 acres in the Bombay Presidency to an acre or two in Pimpla Saudagar.

This diminutive size of holdings is said to be greatly harmful to Indian Agriculture. The evils of small holdings, no doubt, are many. But it would have been no slight mitigation of them if the small holdings were *compact* holdings. Unfortunately they are not. A holding of a farmer though compact for purposes of revenue is for purposes of tillage composed of various small strips of land scattered all over the village and interspersed by those belonging to others. How the fields are scattered can only be shown graphically by a map. Herein we shall have to remain content, since we cannot give a map, with knowing how many separate plots are contained in a holding. The number of separate plots in each holding will show how greatly fragmented it is. We have no figures at all for the whole of India bearing on this aspect of the question. But the Hon'ble Mr.

* Land and Labour in a Deccan Village 1917—p. 48.

G. F. Keatinge in his note§ submitted to Government in 1916 has collected figures of typical cases from all the districts of the Bombay Presidency. The following table is constructed to present his data in an intelligible form :—

Case II V. Shirgaon T. Ratnagiri D. Ratnagiri.		Case V V. Badlapur T. Kalyan D. Thana.		Case VI V. Kar.a T. Mawal D. Poona.		Case VII V. Althan T. Ghorasi D. Surat.		Case IX Surat District.		Case X Kaira District.		Case XII V. Lhasurna T. Koregaon D. Satara.	
Area of a holding.	No. of separate plots.	Area of a holding.	No. of separate plots.	Area of a holding.	No. of separate plots.	Area of a holding.	No. of separate plots.	Area of a holding.	No. of separate plots.	Area of a holding.	No. of separate plots.	Area of a holding.	No. of separate plots.
A. g.		A. g.		A. g.		A. g.		A. g.		A. g.		A. g.	
34½	3	48 6	53	60 0	27	41 0	9	18 0	14	62 13	27	38	6
33	2	67 0	38	2 27	8	85 0	8	13 0	18	65 34	23	23	7
20	3	1 9	6	2 31	5	26 9	8	22 0	20	36 16	16	36	3
1 14	5	6 30	8	16 6	7	...	...	3 6	4	7 9	5	22	10
1 30	5	24 0	17	2 35	6	...	...	5 0	7	5 26	5	...	...
1 10¾	4	...	...	...	...	...	...	1 26	9	13 16	6	...	...
6 33½	9	...	...	...	...	...	...	0 26	9	28 4	15	...	...
3 29¾	7	...	...	...	...	...	...	...	...	12 10	8	...	...
2 20½	2	...	...	...	...	...	...	...	...	12 7	3	...	...
35¾	3	...	...	...	...	...	...	...	...	5 26	5	...	...
...	...	...	...	...	...	...	...	...	...	5 34	5	...	...
...	...	...	...	...	...	...	...	...	...	3 39	3	...	...

(A = acre. g = guntha. V = village. T = taluka. D = district.)

These small and scattered holdings have given a real cause for anxiety regarding our great national industry. Comparative Statistics go to swell this feeling by laying bare two very noteworthy but equally sad facts regarding economic life in India; (1) that it is

§ The author is thankful to him for a copy of this valuable note.

largely an agricultural country;* and (2) that its agricultural productivity is the lowest. §

Both these truths are painful enough to have startled many people into inquiring the causes of this low productivity. As a result, attention has now been concentrated on the excessive sub-division and fragmentation of agricultural holdings. Enlarge and consolidate the holdings, it is confidently argued, and the increase in agricultural productivity will follow in its wake. !!

III.

Consolidation of holdings is a practical problem while the enlargement of them is a theoretical one, demanding a discussion of the principle which can be said to govern their size. Postponing the consideration of the theoretical question of enlargement, we find that the problem of consolidation raises the following two issues:—(1) how to unite such small and scattered holdings as the existing ones, and (2) once consolidated how to perpetuate them at that size. Let us consider them each in turn. Sub-division of land need not involve what is called the fragmentation

* I. Occupational Statistics.

	England and Wales.	Ireland.	Austria.	Belgium.	Bulgaria.	Denmark.	France.	Germany.	Holland.	Hungary.	Italy.	Russia.	Switzerland.	India.	U. S. A.
Percentage of Agricultural Population.	15·3	44·7	60·9	20·7	82·6	48 2	42·7	35·2	30·7	69·7	59 4	58·3	30·9	71·5	33·3

§ II. Produce in Lbs, per acre.

	U K.	Canada.	New Zealand.	Austria.	Egypt.	France.	Germany.	Hungary.	Japan.	U. S. A.	Turkey.	Indian Provinces,				
												U. P.	N. W. P.	Punjab.	Bombay.	U. Burma.
Wheat	1973	1054	1723	1150	1634	1172	1796	1056	1176	...	1318	850	555	555	510	322
Maize	...	3487	3191	1135	2059	1097	...	1489	1525	...	1372	1100	735	766	...	...

of land. But unfortunately it does, for, every heir desires to secure a share from each of the survey numbers composing the entire lands of the deceased instead of so arranging the distribution that each may get as many whole numbers as possible, *i.e.* the heirs instead of sharing the lands *by* survey numbers, claim to share *in* each survey number, thus causing fragmentation. Though fragmentation does subserve the ends of distributive justice it renders farming in India considerably inefficient as it once did in Europe. It involves waste of labour and cattle power, waste in hedges and boundary marks, and waste of manure. It renders impracticable the watching of crops, sinking of wells and the use of labour saving implements. It makes difficult changes in cultivation, the making of roads, water channels, etc., and it increases the cost of production. These disadvantages of fragmentation are to be recounted only to lend their support to the process of restripping or consolidation. The methods of "restripping" are many, though all are not equally efficacious. Voluntary exchanges can hardly be relied upon for much. But a restricted sale of the right of occupancy may be expected to go a good deal. For, under it, when survey numbers are put to auction on account of their being relinquished by the holders or taken in attachment for arrears of assessments, only those may be allowed to bid in the auction for the sale of the right of occupancy whose lands are contiguous to the land hammered out. Again as further helping the process of reunion, the right of pre-emption may be given to farmers whose neighbour wishes to sell his land. These methods, it must be admitted, can achieve the desired result in a very small measure. The evils of fragmentation are very great and must be met by a comprehensive scheme of consolidation. It is, therefore, advocated* that if two-thirds of the Khatedars, holding more than half of the village lands, apply, Government should undertake compulsorily to restrip the scattered fields of the village. This compulsory restripping is to be executed on two principles, (1) of "Economic Unit" and (2) of "Original Ownership". Regarding the merits of these two principles the Baroda Committee observes† :—

"In the first the value of each holding is ascertained, then the original boundaries are removed, roads are marked out, lands required for public purposes are set apart, and the rest of the land is parcelled out into new plots. Each of these new plots must be of such a size as, having regard to the local

* R. B. C. p. 38.

† R. B. C. p. 35.

conditions of soil, tillage etc., to form an economic field, *i.e.*, a parcel of land necessary to keep fully engaged and support one family. These new plots may be sold by auction among the old occupants, restriction being placed on purchase so as to prevent a large number of cultivators from being ousted. The purchase money may then be divided in a certain proportion among the original owners of pieces, a portion being reserved for expenses, in which Government would also contribute a share. Another mode would be to acquire all the land of the village then to sell it in newly constituted plots by auction as is done by City Improvement Trusts or by Government when laying out new roads in Cities or when extending a town. But we do not recommend its adoption in the improvement of agricultural land. It may result in land speculation and the small holders may be ousted in such numbers as to cause a real hardship.

"According to the second method when the restripping has been decided, a list of Khatedars and their holdings is made and the latter are valued at their market price by Panchas. Then the land is redistributed and each Khatedar is given new land in proportion to his original holding and as far as possible of the same value, difference to be adjusted by cash payment. In this method no Khatedar is deprived of his land. Each is accommodated and in the place of his original small and scattered fields gets one plot of almost their aggregate size. It is only a few people whose holding may be very small and whom it would not be expedient to keep on as farmers, that may have to lose their small pieces. But they too would benefit as they would get their full value in money."

The Baroda Committee prefers the second method because :—

"It takes as its starting principle, that nobody (except perhaps a few, holding plots of insignificant sizes) is going to be driven off the land. It will give even the smallest man, chance to better his condition. Each land holder receives a new compact piece of land proportionate to the value of his old, small and scattered field. In this way the previous subdivisions together with their attendant evils totally disappear." ‡

Regarding consolidation, Prof. H. S. Jevons says :—

"The principles which should guide the choice of a method of carrying out the re-organization of villages on the lines above described are the following. In the first place compulsion should be avoided as far as possible and the principle adopted that no charge should be imposed upon any area unless the owners of more than one-half of that area desire the change. Should this condition be satisfied for an area.....it would seem expedient that legal

‡ Ibid.

power should be taken to compel the minority to accept the redistribution of holdings under the supervision of Government. In the second place.....the expense of the operation should be kept as low as possible.....In the third place considerable elasticity should be permitted in the methods of carrying through the re-organization in the different places during the first few years, as the whole undertaking would be in an experimental stage so that different methods might be tried, and the best be ultimately selected for a permanent set of regulations. Fourthly, the possible necessity for a considerable change of the existing tenancy law in the re-organized villages must be faced.....For the sake of completeness I may add as a fifth principle the obvious condition that redistribution of land must be made upon the most equitable basis possible, and that liberal compensation should be given to those, if any, who may be excluded from a former cultivating ownership."*

As for procedure in the compulsory consolidation of holdings both Prof. Jevons and the Baroda Committee propose the appointment of Commissioners to hear applications for consolidation and to carry it out, leaving to any objector the right to petition the Court to stay the proceedings in case he felt that an injustice was being done to him.

The problem of perpetuating such a consolidated holding will next demand the care of the legislator. It is accepted without question by many that the law of inheritance that prevails among the Hindus and the Mohomedans is responsible for the subsidivision of land. On the death of a Hindu or a Mahomedan his heirs are entitled without let or hindrance to equal shares in the property of the deceased. Now a consolidated holding subject to the operation of such a law of inheritance will certainly not endure for long. It will be the task of Sisyphus over again if, after consolidation, the law of inheritance were to remain unaltered.

But how is the existing law of inheritance to be changed? If it is not to be the law of equal sub-division shall we have the law of primogeniture? †

* The Consolidation of Agricultural Holdings in the United Provinces, 1918, pp. 45–46. The author is grateful to Prof. Jevons for a copy.

† Besides these two systems of inheritance there is a third which allows a father liberty to do as he likes with a part of his estate provided he leaves sufficient for his heir to constitute what is called *pars legitima*. Under it the Germans have enacted a permissive law of *Anerbenrecht* designed to obviate the effects of the law of inheritance in causing unnecessary subdivisons of land. In some aspects it anticipates the proposals of the Baroda Committee; in others those of the Hon. Mr. Keatinge. For a decription of it see Prof. N. G. Pierson's Principles of Economics vol. II, pp. 286–90.

The Baroda Committee thinks that,

"It is not necessary that it should be introduced. All that is wanted is, that there should not be sub-division of land beyond a certain limit, which may be fixed for the sake of good agriculture. There is no objection to a holding being subdivided, so long as by so doing each of the parts does not become less than the limit fixed for the subdivision of land. But when a holding reaches a stage to render further subdivision uneconomic, the other members of the family may not be allowed to force further subdivision of the holding. Instead of being subdivided, it may be either cultivated in common or be given to one of the members of the family as a whole, and that member made to pay amounts equal to the value of their shares as compensation to the other members."*

The principle of not dividing immoveable property among the heirs, when division would result in inconveniently small shares, but of giving to the highest bidder among the sharers or in case none of them is willing to have it, to outside bidders, and dividing the money realized in proportion to the recognized shares, has been accepted in the Indian Partition Act, No. 4 of 1893, section 2 of which runs thus:—

"Whenever in any suit for partition, in which, if instituted prior to the commencement of this Act, a decree for partition might have been made, it appears to the Court that, by reason of the nature of the property to which the suit relates, or of the number of the shareholders therein or of any other special circumstance, a division of the property cannot reasonably or conveniently be made and that a sale of the property and distribution of proceeds would be more beneficial for all the share-holders, the Court may, if it thinks fit, on the request of any such share-holder interested individually or collectively to the extent of one moiety or upwards direct a sale of the property and a distribution of the proceeds."

Granting the advisibility of thus changing the law of inheritance it only requires to amend the Civil Procedure Code so as to make it obligatory on the Courts to refuse partition whenever it would reduce a field beyond the economic limit fixed in advance.

Another method of dealing with the problem is advocated by the Hon. Mr. G. F. Keatinge, Director of Agriculture, Bombay Presidency. In the statement of Objects and Reasons appended to his draft bill he says:—

* R. B. C. p. 26.

"4.....The object of this bill is to enable such landowners as may wish to do so to check the further sub-division of their lands and to enable them, when it is otherwise possible, to effect a permanent consolidation of their holdings; and also to enable the executive government to secure the same results in respect of unoccupied land. The legislation proposed is purely enabling, and it will be operative in the case of any holding only upon the expressed wish of any person possessing an interest in that holding.

"5. The scheme embodied in this bill for securing these objects is briefly as follows. In order to be constituted an economic holding a plot of land must be entered as such in a register prescribed by rules. If the land is occupied, it will rest with some person having an interest in the land to make an application to the Collector to have the land registered as an economic holding.....Unless the Collector considers that there are sufficient grounds for rejecting the application, he holds a careful enquiry in which he follows a procedure similar to that prescribed in the Land Acquisition Act 1894. If the proceedings show that all persons interested agree, the land is registered. Land vesting absolutely in Government may be registered without inquiry. The holding must in any case be registered in one name only, and the act of registration annuls all the interest of all other persons, except the registered owner, in the holding. Thereafter the owner cannot divide the plot but must so long as he owns it, keep it entire. He may sell, mortgage or otherwise dispose of it as an entire unit, but not dispose of part of it or do anything that might result in splitting up the holding. On the death of the holder, if he has not disposed of the land by will it will devolve upon a single heir. If the provisions of the bill are contravened (for instance if the holder mortgages a part of his holding and the mortgagee obtains a decree for possession), the Collector is empowered to send a certificate to the Court, and the Court will set aside its decree or order. The Collector may also evict a person in wrongful possession. When a plot has been once constituted an economic holding, the registration cannot be cancelled except with the consent of the Collector; the grounds on which cancellation will be allowed, will be laid down by rule and it is proposed that it shall be permitted chiefly in cases where economic considerations indicate that it is expedient".

Summing up this discussion of the two issues of consolidation, it must be said that the problem has not been viewed as a whole by all its advocates. The Baroda Committee alone endeavours to consolidate as well as to preserve the consolidated holding. Prof. Jevons makes no provision to conserve the results of consolidation. Mr. Keatinge does not deal with consolidation at all. He is concerned only with the prevention of *further* fragmentation. But fragmentation, there will be in a holding even after it is entered as an economic holding. By his measure he will only succeed in preserving the

holdings as they will be found at the time of registration, *i.e.*, he will not allow them to be reduced in size. But they will be small and scattered all the same. Mr. Keatinge, notwith-standing his legisiation, leaves the situation more or less as it exists. Real consolidation is, however, aimed at by Prof. Jevons and the Baroda Committee. The principles they advocate for the purpose are almost the same; and so are their procedures for carrying it out.

As for the preservation of consolidated holdings Mr. Keatinge as well as the Baroda Committee establish the one-man rule of succession. The Baroda Committee would adopt this rule only when division of land would result in uneconomic holdings and then too would compel the successor to buy off the claims of the other dispossessed heirs. Mr. Keatinge would let the dispossessed heirs off without compensation.

A more serious criticism against these projects of consolidation consists in the fact they have failed to recognize that a consolidated holding must be an enlarged holding as well. If it is said that Indian agriculture suffers from *small* and *scattered* holdings we must not only consolidate, but also enlarge them. It must be borne in mind that consolidation may obviate the evils of *scattered* holdings, but it will not obviate the evils of small holdings unless the consolidated holding is an economic, *i.e.* an enlarged, holding. The Committee as well as Mr. Keatinge have entirely lost sight of this aspect of the question. Prof. Jevons, alone of the advocates, keeps it constantly before his mind that consolidation must bring about in its train the enlargement of holdings.

(*To be continued*).

BHIMRAO R. AMBEDKAR.

THE GROWTH OF COTTON INDUSTRY IN BOMBAY.*

The history of the cotton industry in India is lost in antiquity. India was the birthplace of the cultivation and manufacture of cotton; and cotton spinning and weaving flourished in the country probably long before the date of authentic history. Herodotus, writing in 445 B. C., says that "they (the Indians) possess likewise a kind of plant which instead of fruit, produces wool, of a finer and better quality than that of sheep. Of these the Indians make their clothes". Again, Arrian in his history of Alexander says that "the Indians wore linen garments, the substance whereof they were made, growing upon trees; and this indeed is flax, or rather something much whiter and finer than flax". It is difficult to trace the development of the Industry in the olden times; but from records available, it is abundantly clear that the industry grew; and a brisk trade was carried on between India and the Western Countries in some of its finer products. Indeed, so brisk must have been the trade that a British Act of Parliament was required in the 18th century (in 1721) to prohibit the import into Britain of Indian Calicoes, except under severe penalties! After the Industrial revolution in England, and the coming of the power-loom, Indian exports, however, began to decline. But still, in the beginning of 19th century India seems to have supplied herself all her needs in this respect. Prior to that, and immediately after the War of American Independence, the British Government seemed to have turned their attention to the possibilities of developing the cultivation of cotton of a finer type in India; and in order to ensure the supply of the raw material to the Lancashire looms, the East India Company seriously took up the experimental culture of cotton almost all over India. This was carried on in Bengal, the North West Provinces, Gorakpur, the Doab, Bundalkhund, Agra, Jullunder, Nagpur, the Narbada Districts, Berar, Sholapur, Bombay, Deccan, Dharwar, Belgaum, Khandesh, Madras, Coimbatore, Tinnevelly, Bellary and the Northern Circars. And the experiments began as early as in 1790. In 1848 a select committee was appointed on the growth of cotton in India; and considerable progress seemed to have been made by the middle of the century, when a new development took place, and a power mill was started for the first time in Calcutta. This mill, however, seemed to have achieved

* As this article was already in print when Sir Dinshaw Wacha's paper on the same subject was read before the Royal Society of Arts in London, no reference could be made in it to that admirable paper.

little success. The Industry gravitated more and more towards Bombay.

The Geographical reasons for this gravitation might be briefly examined. The great valleys of the Narbada and the Tapti, with their rich black basaltic soil, were for ages devoted to the cultivation of cotton. Their two great outlets,—Broach and Surat,—were towns from which a considerable export trade had always been carried on. The Cutchis and the Guzeratis, aided by an efficient maritime population, were the chief exporters. The Parsees who settled in Surat and Broach, soon secured their share of the trade also. And the long momentum that the Industry had received, helped in its progress, till these two parts become almost world famous for their cotton. Indian shipping likewise grew under the progressive enterprise of Parsee builders like the Wadia's. The time soon came, however, when with the gradual silting up of the two rivers, together with the increase in the size of ships, Surat and Broach declined, and Bombay grew in commercial importance. The increase in the size of ships made it possible for Bombay to import coal from England. And this led to the starting of the first cotton mill in Bombay in 1851. The Mill was started by Parsee enterprise, by one Cawasji Nanabhai Davar, though it did not actually begin working till 1854. It was a small concern of about 500 or 600 spindles; but it proved to be a more successful enterprise than the "Grosery" mill of Calcutta. Considering that enormous difficulties had to be faced, all the machinery had to be brought out by the Cape route—and it took four months to do so; considering that unskilled labour had to be organised and coaxed into the industry into manipulating novel machinery and applicances; and considering also that there were few cotton presses in the Country, Bombay being chiefly an exporter of raw cotton, the enterprise was as risky as it could be. All this, combined with the absence of railways, of banking institutions, of education, and of all the resources of an organised industrial community, made the venture speculative. And Cawasji Davar received little support or encouragement from the people. He was, however, assisted and guided by a few sympathetic English friends; and in spite of innumerable difficulties, within a very short time, made the Mill a success. The two hundred and odd Mills, at present working in the Country—as much as the Country itself,—owe much to his pioneer efforts.

Davar's mill was followed in September 1855 by the "Oriental", and in January 1857 by the "Throstle." By 1861 the number of Cotton mills in the Country had increased to a dozen, containing 3,38,000 spindles in all, with an estimated annual consumption of 65,000 bales. By 1874 the number of Mills in Bombay increased slowly to 15, (and 27 in all India) containing 600,000 spindles and consuming 11,400 bales. The principal ones among the Bombay Mills were the Davar, the Oriental, the Maneckji Petit, the Alliance, the Great Eastern, the Morarji Goculdas, the Albert, the Royal, and the Kurla Mills, most of these doing both spinning and weaving. They produced coarse cloth for domestic use, of 18 weft by 14 warp, and coarse yarns from 6 to 20. They felt their way in the Indian and Chinese markets, though the early consignment of yarn to China were so bad that they had to be returned.

The Civil War in America, and the cotton famine in England, raised the price of cotton to over 700 Rupees per candy in Bombay. This boom, and the excessive speculation that followed it in the Bombay market, when all sorts of wild-cat schemes were launched, led to the *share mania.* When the crash came in 1864/5, numberless bankruptcies occurred. It was not till 1871 that confidence was re-established, and credit revived. But the one effect of the disaster was to encourage the spinning and weaving industry. Sir Dinshaw Wacha says in this connection: "The evil of excessive speculation, and the disastrous failure in the cotton trade led Bombay citizens to cast about for the promotion of new industries which might be reasonably carried on with profit, independent of external factors. And no industry commended itself more to their practical sagacity than that of cotton." When the mania had quieted down, it appeared to be the only sound and profitable investment immediately possible, and attended with fewer risks. This was the main reason which led to the promotion of new spinning and weaving mills in Bombay. Within 2 years from 1874 the number of mills in Bombay rose from 15 to 29, and in India from 27 to 47. In fact, in one year alone in 1874–5, 12 new mills were built in Bombay, and 5 up-country. Between 1877 and 1879, 7 mills went into liquidation. The next two years, however, saw them reconstituted. Between 1880 and 1888 nearly 30 more mills sprung up; and in the year 1889, 14 new mills were being built in Bombay, and four, up-country.

The excessive rise in the number of mills in some of these years is to some extent explained by Mr. (now Sir) Bezonji Dadabhoy as follows :—

"If the Mill Industry has not been paying better than other safe investments, why have so many mills been put up? The answer is that promoters with a view to Agency Commission, and agents of Machinists and Stores Suppliers with a view to obtain commission on orders, have been ever on the look out to take advantage of a prosperous year or two, and induce the investing public to take shares for new concerns; pointing out the profits made by the existing mills for the time being, and the advantages of new machinery &c." *

In the 10 years from 1879 to 1889 the number of mills in India had increased by 121 per cent, the spindles by 90 per cent, the labour employed by 113 per cent, and the consumption of cotton by 232 per cent. By 1889 the number of mills had, therefore, increased to 124, the spindles to 2¾ millions, and the consumption of bales to 888,000. Of these 124 mills, 54 were actually working in the City of Bombay, and 14 were in course of construction there. There were 9 other mills in the the Bombay Presidency, 2 in Berar, 3 in the Central Provinces, 2 in Hyderabad, 1 in Indore, 7 in Bengal, 5 in North West Provinces, 9 in Madras, 1 in Travancore, 2 in Mysore and 1 in Pondicherry. The total paid up capital of the mills in Bombay was Rs. 4,93,00,000; that of the other mills in the Bombay Presidency being 1,21,00,000. During the the 5 years from 1889 to 1895 the number of mills of Bombay remained stationary at 69. Two new Mills were added in 1895-6, 4 in 1896-7 and 7 in 1897-8. By 1900 there were 82 mills in Bombay. Since then their progress has been more steady; and by 1913, there were 90 mills in the City with about 3 million spindles. In 1915, 86 mills were working in Bombay; 160 in Bombay Presidency with a paid up capital of 13 crores, and 205 in all India with a total paid up capital of Rs. 16,75,00,000.

Some of the other factors that influenced the growth of the Cotton Industry in Bombay may be briefly considered. The origin of the industry lay chiefly in the profits made by Parsee and Guzerati merchants in the opium trade with China. The profits made by the earlier mills in the yarn trade with the same country were invested in new mills. The cotton boom of the early, sixties, which, it is estimated, brought about 90 million pounds to this country, was perhaps one of the most important factors in the development of the local industry. After the crash of 1864, this industry appeared to those who were left sadder and wiser after the catastrophe, as the only sound investment possible. The Lancshire agitation of the seventies ended in 1878 in the removal of the Indian Cotton duties.

* Quoted by Mr. B. J. Padshah in "The Cotton Industry of India and the Cotton Duties"—1902.

This, Sir Dinshaw Wacha considers, was an incentive to Indian capitalists,—though for 4 years after 1878 the number of mills in Bombay remained stationary at 32. By this time, however, Bombay cloth had become popular in India, Africa, and Arabia; while nearly the whole of Indian yarn was absorbed by China and Japan. In 1882 India finally became a free trading Country, and with the general abolition of Import Duties, according to Sir Dinsha, a further stimulus was given to the construction of more cotton mills. For, it was chiefly in the, eighties that the number of cotton mills in Bombay increased at a rapid rate from 32 in 1880, to 70 in 1890. In the following decade the number rose to 82. The slower growth was perhaps due to the effects of plague and famine, and also to the fact that there were already 82 mills in the Island. After 1901 the ravages of famine tended to disappear, and about 8 new mills were added in the first 10 years of the new century, chiefly on account of the encouragement given by the Swadeshi movement. If since then the growth has not been maintained, it has been due very largely to the industrial development of Japan, the consequent loss of the Japanese market, and the competition of that country in the Chinese market. It remains to be seen whether the industry will receive any additional stimulus by the raising of the import duty last year over the prevailing excise duty.

It might not be uninteresting now to note the development of Indian enterprise in the industry *outside* Bombay. The history of the Empress Mills at Nagpur affords perhaps one of the most typical instances of the expansion of the Industry in the interior.

It was after the crisis of 1864 that the late Mr. Jamsetji Tata turned his attention to the cotton industry. He purchased first an oil-pressing factory, and converted it into a spinning and weaving Mill. It prospered, and was sold some years later at a profit. But Mr. Tata determined to build another and larger mill. With this object in view he went to England to study the conditions of the industry there, in all their details. On his return from England, he travelled far and wide in the interior of India, and finally fixed upon Nagpur for the location of his new mill, Nagpur being a great distributing centre of the agricultural products of the Central Provinces. He also considered that he would there be near an abundant cotton supply of both long and short staples; nearer the inland markets; and in a locality which was the centre of the handloom industry of the province where he could find plenty of labour from

weaving classes, as also a market for his yarn in the handlooms. Another factor that weighed with him was the proximity of the Warora coal mines. The coal was of poor quality. But Mr. Tata overcame the difficulty by getting new boilers designed and made to suit the coal. The Empress Mills were started on the 1st of January 1877, and many difficulties had to be encountered in the initial stages. The Millowners in Bombay laughed at Mr. Tata's going to Nagpur, and predicted that the Mills would never pay. When, after some years, they started paying and paying well, they turned round and said that it was no wonder that Mr. Tata succeeded in Nagpur! He would not succeed in Bombay where competition was keen! Mr. Tata thereupon purchased the Dharamsey Mills (now known as the "Swadeshi Mills") with a view to show that success depended on a careful marshalling of all the factors of production and on good management. The Dharamsey Mills were badly equipped, and had ruined many owners. He bought them for Rs. 14 lacs; and refused to sell them at a profit of 2 lacs the next day, since he had bought them for his company. It was hard uphill work. But in a few years he turned the Mills into success.

The unprecedented success of the Empress Mills must be attributed to the foresight and the perseverance of the late Mr. Tata. He was always on the look out for new ideas, and always to the fore trying new appliances and inventions with a view to obtaining the most efficient and economic production. He was the first to introduce the "ring spindle" and the "flat card", which he did after two years of careful experimentation. The results were so successful that in some respects the products of Nagpur were admitted to be superior to those of Lancashire. Nor did he lose sight of the importance of developing the commercial side of the business. He always looked about for new markets, and sent numbers of travelling agents to find out centres from which he could distribute the products of the Mill. The selection of cotton from various districts, the establishing of gins and presses near the centres of cultivation, the solution of the problems of transport by the shortest and cheapest routes,—all these engaged his constant attention; till he conceived and worked out for the Mills a thorough and elaborate organization, from the supply of the raw materials to the sale of the finished product. His one great desire was to equip the Mill, and organize the purchases and sales, in so thorough a manner that the business yielded the best results on the outlay. But the financial success of the Mills was

only one part of Mr. Tata's achievement. He took not only the keenest interest but the greatest pains to promote the material welfare of its labouring population. And he organized also a system of apprenticeship, which has produced numbers of mill managers, weaving masters and engineers.

The history of the Morarji Goculdas Mills at Sholapur affords another striking instance of the penetration of Bombay enterprise in the interior. The late Mr. Morarji Goculdas, a Bhatia Merchant, had acquired a large experience of the piece-goods trade in connection with the English firm of Messrs Watson, Bogle & Co., before he started his first Mill in Bombay in 1871. After acquainting himself for three years with the close working of his Mill, he felt convinced that the industry would be very remunerative if moved in the interior, near a rich cotton growing disrrict, where cotton and labour could be had at a cheaper cost. He visited some of the cotton growing districts; and eventually fixed upon Sholapur, where he could get cotton from the Barsi districts, and an abundance of cheap agricultural labour. The place was moreover, an important centre of hand-loom weaving. The Mill started working towards the beginning of 1877, with about 21,000 spindles. The prevalance of famine for some years after it was started, hampered its operations. But Mr. Morarji persevered, and with care and caution, soon established a reputation for his goods in the Southern Maratha Country. Additions and extensions were made to the Mill from time to time; and during the 40 years that it has been in existence it has earned large and handsome profits.

The same energy and acumen, foresight and courage of individual enterprise characterised the growth of the iudustry in Ahmedabad. The old capital of Guzerat, situated almost at the head of the Gulf of Cambay, and in the midst of a cotton growing district, gathered under its Mohammedan Rulers skill which still survives in a large weaving population. With its 60 cotton mills, and a million spindles, producing nearly a quarter of the cotton goods made in this country, Ahmedabad has risen today to an importance, second only to that of Bombay. An account of the growth of the industry in that city, full of interest and instruction as it would be, would form almost a chapter by itself in a history of the cotton industry of India.

Recent developments in the Industry may now be briefly noticed. For several years past, efforts have been made by the Agricultural Departments to increase the outturn, and improve the quality of the

cotton grown in this country. World production has not, it is contended, kept pace with world consumption. And it is believed that an ever growing demand for cotton cloth will necessitate an increased production of the raw material. The after-war demand of Lancashire alone is likely to be great. There are indications that America will not be able to increase its output in the future at the rate it has done in the past. While, the demand, after the war, by European Countries for Indian short-staple cotton will perhaps increase with the increasing possibility of utilising such cotton, in admixture with wool, for producing a cloth cheaper than woollen. The demand from Japan has already been increasing, almost at an alarming rate. Prices in India have already soared to a point higher than they were even in the palmiest days of the great cotton boom of the, sixties. And it will be a bad look-out for Indian Mills, if the cultivation of Indian cotton does not keep pace with their demand. The labours of the Indian Cotton Committee were, therefore, employed not a whit sooner than required. Their investigations will, no doubt, result in measures being taken to increase output, improve quality and prevent a growing evil,—adulteration.

A sixty years' review of the development of the cotton industry in India would appear to show how much the industry owes to the enterprise and energy of those engaged in it in Bombay. Not that there are not good mills in some other parts of India as well. But the lead in the past came from Bombay. And Bombay still leads. The one predominant factor, however, to be seriously faced, in the present and in the near future, is the fast increasing growth of the industry in Japan, from material hitherto supplied chiefly from this country. And no effort must be spared either by the Government, or by those engaged in the industry in India, to face that competition with every possible and available means.

The Indian Cotton Industry has grown in the past without any assistance from the Government of the country ; nay, in spite of the heavy obstacle imposed by it in the shape of an iniquitous excise duty. But times have changed. And the industry is faced with a menace beyond the power of unaided and hampered individuals to confront. Never was time more opportune for sympathetic action on the part of the State, not only in the interest of this country, but in that of the whole Empire.

N. M. MUZUMDAR.

A NEGLECTED INDIAN INDUSTRY.

The foremost industry that strikes the eye when we take a survey of agricultural industries in India is that of sugar making. Although a great deal has been said and written recently about this industry, one cannot but feel that the importance of this great agricultural industry has been yet barely brought home to us. It is bad enough for a country with great natural resources to have come down to the position of dependence for almost all her manufactured articles on outside countries, from the dominant position she once held in the industrial world as a great manufacturer and exporter; but it is time we considered where we are going to, when we begin to depend even for an agricultural product like sugar almost entirely on our imports. Barely half a century ago, India not only met her own demands but was an important exporter, and now Sugar stands second on the list of our imports. The imports of sugar are increasing every year and last year they reached the enormous total of almost a million tons worth over 16 crores of Rupees. And this, when India is supposed to be the indigenous home of the Sugarcane and it is from here that this plant is supposed to have migrated to different parts of the world.*

By the end of the 13th century the sugar-cane had spread over the then civilised world and since then, its development was rapid in other countries. In India, we see a period of stagnation in this as well as in other industries and while the rest of the world was making rapid progress and inventing and introducing better methods of cultivation and manufacture, we were either busy fighting among ourselves or dreaming and singing of our past. We are still doing it and have not as yet realised that the progress of a country in these times depends more on its material advancement than on its spiritual history and that social and political progress can only come if we have a certain material stability and have not to worry our lives thinking how we are going to get our next dinner.

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* Many references are found to this ancient plant in the Puranas and even the Atharva Veda speaks of it. The followers of Alexander speak of a reed growing in India which produced honey without the aid of bees. Other Greek and Roman writers too speak of it. It is repeatedly mentioned as being sent as a tribute to the Emperors of China from the Indian border Princes. Many Mohammedan writers of the 13th century too refer to the sugar industry of India. The various terms Sugar, Sucre, Sacarosa, Sacaroze, Shakkar, etc. are only modifications of the originol word Sharkara.

In the beginning of the 19th century, Sugar had already become an important factor in the domestic life of the Western people. European Countries with their usual sagacity and shrewdness had already realised and recognised the importance of this Industry and a keen rivalry had sprung up among them for owning and cultivating sugar growing colonies. India at this time exported considerable quantities of sugar, mostly from the banks of the Ganges and her Sugar was known all over the world. In fact, she dominated the markets of the world as she produced at that time the major portion of the world's Sugar and continued to do so till the middle of the 19th century. In 1851–52 India exported 1,607,508 cwts refined and raw sugar, a large quantity considering the times. But from this time, her supremacy in the Sugar world began to decline. Young colonies were beginning to grow more and more Sugar and they were utilising all the resources of modern science towards it. Cheap labour (slaves), cheap and new land and natural facilities were greatly in their favour and with the zeal and energy which characterised the efforts of the modern European, full advantage was taken of them. On the Continent too, beet was making rapid strides. The Continental system originating with the Berlin decree (1806) of Napoleon who had realised the importance of Sugar, had created a protective barrier in favour of Beet Sugar. On the other hand, our Government and people alike were sleeping, oblivious of the catastrophe that was befalling us. In passing, one cannot but mention here that even in the Sugar development of the colonies India has played an important, if not altogether an honourable part. Through-out the history of cane Sugar Industry the labour problem has influenced its development to a very great extent. The abolition of the slave trade by European countries beginning with England's lead in 1832 was a very great blow to the colonial Sugar Industry. To India's credit (?) be it said that Indian indentured labour promptly stepped into the breach and but for it, most of the colonies who boast of their Sugar Industry now would have been no better than when they started.

By 1870 India had degenerated into an importing country. In 1871–72 her imports of Sugar were 562,599 cwts; in 1881–82 they were as much as 982,266 cwts; while for 1891–92 we have 2,734,491 cwts. "This was principally cane sugar from Mauritius but in 1895–96 the competition with beet sugar chiefly from Germany became noticeable. In this year the total amount imported was 2,730,693 cwts. 57 per cent. of which was Mauritius sugar while the rest came from Germany

and various sugar producing countries. It is true that although the imports from Germany in 1890–91 amounted to 700,000 cwts., they did not exceed 275,000 during the four following years. But in 1895–96 they rose suddenly to 718,000 cwt. The next year Austria Hungary too exported great quantities so that these two countries were together responsible for 880,000".

The Government of India levied an import duty of 5 per cent *ad valorem* on Sugar in 1894. But this does not seem to have affected the imports at all. In 1899 the Government passed a law levying a duty equivalent to the bounty on bounty-fed sugar and by an Act in June 1902 this was further extended to an extra duty equal to the amount of cartel profit. The effect of this was at once seen in the nine months the legislation was in force as there was at once a slump in the imports of sugar from Germany and Austria Hungary. By the Brussels Convention signed by the representatives of Great-Britain, Germany, Austria Hungary, France, Belgium, Spain, Italy, the Neitherlands, Norway and Sweden, on the 5th March 1902 and enforced from 1st September 1903 it was agreed "That the countries agreeing to the convention pledged their word to abolish all direct or indirect bounties on the production or exportation of Sugars from the date of issue and not to grant new ones during the time of the convention". This convention was originally to last for five years but was later extended with certain modifications. This convention has had a great effect on the world's Sugar Industry, and gave a great impetus to the cane sugar industry by taking away the unnatural advantages which beet sugar had so far enjoyed.

From this time we see a rapid fall in the imports of sugar from Central Europe. The total imports were however by no means decreasing. They were 5,566,257 cwts in 1901/02 and more than doubled in the ten following years. Java which had sent us only 446,685 cwts in 1900/1 exported 8,758,715 out of our total of 12,539,156 in 1910. In 1913/14 we imported 9,937,390 cwts of the total value of £9,971,251 and in 1915/16 in spite of the war 12,845,877 cwts of the total value £ 11,078,531; out of these latter 1,388,233 cwts came from Mauritius, 419,313 cwts from other parts of the British Empire and 10,78,625 from Java and the rest from other parts of the world.

But these imports are only a part of India's total consumption of sugar. She is still the largest cultivator of cane in the world—though

alas! Cuba has now outstripped her in total production—and grows over two and a half million acres of cane. Her cane area has dwindled by almost half a million acres in the last 30 years but sugar cane is still an important crop and the "Gul" we make from it is an important item of food. The average yield of Gul is very low being just over a ton per acre. The total yield of Gul in British and Native India is not far short of 3 million tons. Besides we produce and consume about half a million tons of palm Jaggery. Thus our total consumption of raw and refined sugars is at least 4 million tons, if not more. Thus we are the largest consumer of this food product in the world and our consumption is by no means at its maximum. An Englishman consumed on an average (before the war) 84 lb. of sugar whereas in India the average consumption is barely a third of this.

As I have said above India is the largest grower of sugar cane and the largest consumer of sugar in the world and yet no-where else is the industry in such a hopeless and decrepit state. We still follow the same methods of cultivation and manufacture as our forefathers did ages ago. Our methods are crude and wasteful in the extreme. Jáva and other countries get an extraction of 94/96 per cent. on the sugar in their cane and obtain an average of over 4 tons of sugar (and often much more) per acre. They use methods of cultivation, manufacture and transport which reduce the cost to a minimum and use their bye-products to the best advantage; while we here are still content with our average one ton of Gul per acre. Our loss in milling the cane itself is enormous. If only we crushed the cane we grow, properly, it would be a great gain. Add to it an improved cultivation, and we can certainly stop our imports without increasing the area and we would very probably have a surplus as well. What a grand future there is for the Industry if the area could be also increased.

There seems to be a belief in certain quarters that under normal conditions, cane sugars from the Tropics cannot compete with beet sugars from the Temperates. Even leaving aside the consideration of freight which always has played and will play an important part in matters of such kind especially where the product has to be carried considerable distances inland as in India, and the question of the preference for cane sugars evinced in certain quarters for its supposed medicinal qualities, this belief which was created by the

low priced bounty-fed beet sugars has not been borne out by facts. Nothing speaks more eloquently in a question of this kind than facts. Since the Brussels Convention, of 1903, which did away with bounties and cartels, the rapid rise of the percentage of cane sugar in the total production of sugar in the world (from 38 per cent. in 1900-01 to 49 per cent. in 1911-12) definitely proves that under normal conditions, cane sugar can not only compete with beet Sugar but can often beat it in its own market. The rise of beet sugars before 1903 also incidentally shows us what actively sympathetic Governments can do for a new industry with vague and remote chances of success in the beginning.

One has to look at this industry also from another and perhaps even a more important point of view. Since the war, the disadvantages of depending for important necessaries of life on foreign countries have been severely brought home to us. The cry has become universal that the Empire has to be self-sufficient; that the Empire ought to produce and can produce all that it needs, within its own boundaries; that we should not have to look to the complaisance of any foreign friendly nations for supplying us with anything we need; and that the Empire cannot become an economic entity unless and until the resources of each of its component parts are fully realised and measures taken to develope them. That sugar is an important factor of life is a thing beyond doubt and that the British Empire is not self sufficient in the matter of its sugar production is a thing well known. But until recently even the wise politicians of Great Britain had not realized the importance of the Sugar Industry.

The total consumption of the British Empire is, I believe, somewhere about 7,500,000 tons and it is fast increasing. Out of these requirements about a half is imported. England herself imports nearly 2,000,000 tons a year, partly from Mauritius and the West Indies and partly from Cuba, Java and such other countries. The Empire is thus dependent for almost 50 per cent. of its sugar on foreign countries. This is a serious state of things and the appointment of a sugar commission in England is a sure indication of the gravity of the situation. Mauritius and the West Indies, the two most important sugar exporting parts of the Empire, are already doing their best and one cannot expect any very great increase in their exports. In Canada and Australia, two other parts of the Empire that

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produce sugar on some scale, the Sugar Industry is hardly yet promising. The only other important sugar producing part of the Empire is India. And to India we must look for the supplies of the Empire. One can see therefore that not only Indian interests but Imperial interests also demand that this important industry should be tackled, and tackled soon and that the Empire should be made self-supporting in the matter of its sugar production.

But this is by no means an easy task. The problems that face the industry are many. There is first of all the necessity of organising the industry on a self-sufficient basis so that it may pave its own way. Then, it must not seriously encroach on other valuable food area, as jute has done in Bengal. The transport question has also to be solved. In the industry itself the problems are manifold. There is the cultivation to be improved; new and richer varieties of cane to be introduced; the cost of cultivation to be reduced to a minimum; maximum yield up to the best modern standard to be attained; and finally, the manufacture to be carried on so that the returns are maximum and the fuel consumption minimum. Furthermore, we have to arrive at a process of our own which will suit our conditions best, will keep up the supply of Gul and give us as small quantities of molasses as possible. The molasses have also to be utilized either for distillation, preferably commercial or for cattle-food purposes. These are the problems that face us.

This cannot be accomplished without a great effort both on the part of the people and the Government. It is true that the Agricultural department has been trying to improve the cultivation of cane, but its advent is recent and it has not as yet shown any very special results. With a very few happy exceptions, the agricultural department does not command the services of men specially trained to carry on work for the regeneration of the sugar industry. The agricultural department has moreover other things also to look to. On the other hand, the average cultivator has neither the education and means nor the inclination to utilize the world's experience to his best advantage. Amongst the educated or the monied classes, there are few who have the desire, the capacity and the means to organize new industries. It is difficult to say what is responsible for this state of things. Whatever it is, the fact remains that we are rather in a hopeless muddle as regards our Sugar Industry and it is only

an actively sympathetic Government that can get us out of this situation.

Formosa is a typical instance of what an actively sympathetic Government could do in the matter of a neglected industry. Formosa became a part of the Japanese Empire in the year 1895. At this time the exports of sugar from this island were negligible and the sugar industry was in a very crude state. The yield of cane per acre was only 8 tons and the yield of raw sugar 9½ cwts. per acre. Till 1902 the hands of the Japanese Government were encumbered by disturbances in the country but from that year it took a very vigorous action in developing the resources of the Island. Cane experimental stations were at once founded and various laws were enacted giving special facilities to sugar factories and strongly discouraging old methods. It is true that this was done at the cost of the original Chinese cultivators of the land but they were so illiterate and obstinate that but for these strong measures it is doubtful whether the island would have made the progress it has. The progress made within 10 years was phenomenal. The yield of cane per acre increased to 14 tons and of refined sugar 30 cwt. that is almost 3½ times as much as the old yield. From an insignificant position in the sugar world in 1902 Formosa now monopolises the imports of sugar into Japan.

I do not mean to suggest that one can introduce here all the methods that Japan used in Formosa; in India we certainly do not want to see our agriculturists destroyed in order to profit a few capitalists but at the same time we must be prepared to suffer a little personal inconvenience in order that the country may profit. We can improve upon the Formosan method and learn from Japan's mistakes. But the instance certainly does prove what could be done within the space of a few years by an activety sympathetic Government even with a very illiterate and obstinate class of cultivators.

Like all other agricultural industries, the sugar industry has two distinct branches, the cultivation of the cane and the manufacture of the products from the cane.

The aim of successful cultivation is to reduce to a minimum the cost of production for a certain quantity of sugar obtained. Better and richer varieties of cane are to be introduced; water and manures

are to be utilised to their best advantage. The average cultivator is a very small holder and further, has neither the education nor the means to better the methods he has been following. He has to borrow money at exhorbitant rates of interest even for his cultivation, and hence is very chary of increasing the cost of cultivation. What has to be done is that not only better methods and varieties have to be shown to the cultivators, but facilities have to be found for enabling him to introduce them. In both these directions, Government could and ought to do a lot.

(1) Government has already introduced the system of model demonstration farms. These should be further extended and multiplied. Nurseries like the Mountain Nurseries in Java should also be started where research work in the matters of better varieties of cane for the district should be carried on. The men who have to be in charge of these as well as the model farms should be carefully trained. I should suggest the training for them to be on the following lines :—

Students should be picked up from Agricultural Colleges. They should, during their course, and for a year or two after degree, study local conditions. They should be then sent out to great cane growing countries, preferably Java first and then Mauritius, and there have a thorough training in the methods used in planting, etc., as also in research work. They should also be put through a factory for a short time, in order to be better able to understand the purpose of their work. When they are thus fitted, they should be put in charge of model farms, and later, if they prove their worth, in charge of the Nurseries mentioned above. The advice of these experts should be free or there should only be a nominal charge. A central laboratory should be maintained, where advice could be given at a nominal charge on the quality of soil, the ingredients it is deficient in, the quantity and the quality of the manures for the use of different crops, etc.

(2) The work of giving facilities to be given to the cultivators for introducing better varieties can best be undertaken and carried on by Co-operative Credit Banks under Government supervision and control. These banks should have shares of guaranteed interest and of small denomination, and should be managed by a joint committee of a few leading citizens of the district elected by the cultivators,

and two or three representatives of Government. The object of the banks should not be to make profit, but stimulate enterprise in agriculture and farming in the country. The Banks also should try to break the undue influence of the Marwari and the profiteering middlemen from amongest the cultivators. At present, the Marwari advances money to cultivators at 12 to 24 per cent. interest, has his lien on the produce and sells it on the "dalali" system. The cultivator has to clear off his produce early and at any price obtainable, as he has to pay the Government assessment and his debt. Thus, the major portion of the profits go to the Marwari and very little is left to the man who has laboured in the creation of the produce. Co-operative Credit Banks can do a great deal in correcting this evil. The cultivator will get more for his labour; thereby will have more spare cash to utilise and will have a greater incentive to better and harder work. The most expensive item in cane cultivation is manures and the cultivator has to pay for it many more times than their real cost. The banks can buy manure and give it to the cultivators on easy terms. They can also insist on the use of particular seeds as particular methods as a condition of their lending money and can thus introduce new varieties and new methods.

In the matter of milling and manufacture of cane, the ideal to be aimed at is grinding of the cane at well-organized central factories. The present methods of bullock milling and open fire boiling are wasteful in the extreme. The best results obtained in bullock-mills leave over 20 per cent of the juice (and in many cases much more) in the *bagasse*, which is burnt away as fuel. Thus at our best we lose at least 25 per cent of the available sucrose in the cane. Again where the juice is boiled to Gul used for refinery purposes, we further have a double waste. There is the fuel wasted in boiling the juice to a solid which has to be melted and again boiled for refining and then in boiling juice on open fires we destroy a part of the available sucrose in the juice either by inverting it, or by carameling it. This loss, however, can be considerably mitigated by using modifications of the open furnances like the Poona furnance for instance.

Apart from waste, bullock-milling is an extremely slow and laborious process. An ordinary bullock mill takes as much as 15 days to work off an acre of cane in the Deccan. Imagine then the plight of a place like Kopargaon where 5,000 acres of cane have

sprung up within almost five years. I have noticed people in this district sitting idle and hopeless, their cane rotting in the field, and their new planting considerably delayed simply because their bullock-worked mills were unable to cope with the pressure of grinding. I was told that in this district many cultivators have given up planting additional areas of cane, because they felt they could never have it crushed. It is not every cultivator that can go in for even a modest power-driven mill or has sufficient cane to keep it in full work, even if he had one. Experiments could be made of having co-operative crushing and boiling systems, the cultivators pooling their canes and dividing their profits. Perhaps the co-operative credit banks mentioned above may be useful in this direction also, but they will only be a stop-gap and will be, at their best, useful only where Gul is to be made. If we want a successful sugar industry, we must have large central factories and bullock-milling will have to be systematically discouraged as far as possible.

In the case of these big central factories, I am of opinion that Government should not take a leading part. Of course, they too have to be nourished and helped as far as possible like other infant industrial concerns, but the help should be indirect, and at the most, Government should guarantee interest on the subscribed capital for a number of years. Concession like Water, Transport and Distilling Facilities should be granted and sometimes, land will have to be acquired, or regulations enacted, giving a factory control over certain cane area. And here we come across a very difficult and touchy problem.

The manufacture of sugar is essentially a chemical process and requires a highly technical machinery and a trained staff of men to attend to it. Further we have to get the best out of the cane, its juice and the *bagasse*, and this too requires complex machinery and a staff of trained men to work it. We have to get our sugar at the minimum cost as it has to stand in competition with that made elsewhere. Now we cannot have a sugar factory on a small scale, because we cannot possibly imagine a small factory having a fourteen or a sixteen roller train, and a battery of vacuum pans, as well as a quadruple effect ; nor can we imagine it keeping a trained staff of chemists to look after its efficiency. Again, if we did limit the size of such factory, the initial and running cost will be proportionately too great. The size of the factory will, it is true, be ultimately

limited by the increase of the cost of transporting the canes from longer distances, and their deterioration in transport, and the actual size of the factory will be determined by local conditions; but after all, it goes without saying, that one cannot have the cane sugar industry as a cottage industry.

Again the factory must be kept continuously in work to maximum capacity and as long as possible, if you are going to get the best out of it. This means, that the factory has to command a certain definite cane area from which it can get the cane as it wants. Organisation on a co-operative basis where the farmers combine to give the factory their cane, being impossible in the present state of education of our farmers, and no large tracts of land being usually available for factory purposes, we naturally have to take recourse either :—(1) to legislation enacting compulsory sale of the cane in the district to a certain factory on some scale depending upon the sugar in the cane and the price of sugar at the time of sale or (2) to land acquisition, as a means towards successful sugar factories. An advantage claimed for the acquisition of lands and concentrating it under one management, against legislation is that the factory would be able to get the best out of the land since it can afford to make a speciality of its cane growing also.

Thus, we find ourselves in a very difficult situation. In a case of this kind, we have to look at the question from the point of view of the greater good. That the sugar industry has to be carried on in this country is a point beyond doubt. It is not possible to carry it out, unless large areas were concentrated under one control. In this case, we have to sacrifice the interest of a class to the interest of the community. We can however, try to mitigate the evil to a great extent if land is acquired subject to some such conditions as follows :—

(1) That the Company for which the land is to be acquired should be a joint stock company registered in the district where the factory is to be started, and a certain number of shares be reserved to the public from the district, at least for a certain time.

(2) That the land be valued at market price.

(3) That the factory should have a certain number of guaranteed preference shares, of small denominations reserved for the cultivators of the district.

(4) That the owners of land acquired should have either cash or the above shares of the factory for their land.

(5) The cultivators should be given preference in the matter of employment in the factory or on the land acquired.

(6) That they should have a representative if possible, on the Board of the Company.

India is a large country, the climatic and other conditions vary considerably in different parts, and one can after all only talk in very general terms when one is talking of an industry in relation to the whole country. Every district will have to be specially studied, and special methods adopted to suit its development.

Before I conclude, I should like to make a few remarks about the sugar industry in the Bombay Presidency and especially in the Deccan. On paper, Bombay with its total area of about ninety thousand acres out of India's over 2,500,000 acres appears negligible and yet Bombay with its extremely suitable weather and climate, the enormous natural advantages it has in the matter of storage of water up in the Ghauts, the possibility of this water being utilized, first for electric power, and then for irrigation purposes, the further possibility of this electric power being utilised in making Nitrates to be used as manures, or in running our sugar as well as other factories in a country where fuel is scarce, the extreme suitability of the black soils of the Deccan Plateau which give as rich a cane and as rich a yield as anywhere in the world, the absence of devastating agents like typhoons and floods, Bombay with its long cane season has its own importance. At one time, all the cane that was grown in this Presidency was needed for Gur-making. The Gur made from the Bombay cane is of a high quality and the demand for it was at one time so brisk that it actually fetched better prices than sugar. But, with the opening of the new canals, and the additional one hundred-thousand tons it has put on the market in the last ten years, the market is already getting glutted with Gur. And throughout last year, the Gur prices remained notably low (often less than ½ the price of sugar) in spite of the war, and the high prices of sugar prevailing. The position of Gur will still be worse when the new canals that are under project will all be developed (bringing in all over 60,000 more acres under water), and then

either cane will have to be stopped growing or sugar will have to be made. In these districts, sugar factories are bound to be a success if properly organised. The canal system can be kept on extending gradually as the industry develops, and I feel there is a great future for the sugar industry in this Presidency.

In considering the sugar industry of India, one should not forget the possibilities of the palm sugar. There are enormous tracts of untapped palm forests in Central India and labour there, is by no means over-busy. Palm sugar can be carried on primarily as a cottage industry, and is supposed to be the cheapest sugar that could be made. The crude sugar can be collected and refined in large well designed factories, running all throughout the year. Investigations in the possibility of palm sugar will be well worth going into.

S. K. KELAVKAR.

NOTES ON CURRENT TOPICS.

Ship-building in India.

A question of National and Economic Defence has begun to engage the attention of the country. The prevailing shortage of tonnage, the effects of which are likely to continue for some time even after the cessation of war, has brought home to us the urgent need of establishing and developing in India a ship-building industry, as a measure bearing not only on after-war reconstruction, but on permanent economic and national safety. The number of ships that will be required, even for our coasting trade, after the war, will be large. In fact, the number of ships, employed in Indian waters, was continually on the increase till the outbreak of war. The construction of ships in Indian shipyards, and from local material, is perhaps the only solution of the pressing question of present and future high freights.

The development in the United States of the "fabricated" ships alters India's position as a ship-building country, and opens out great possibilities. There are at the present moment in America as many as 6 or 8 structural fabricating shops at work, making parts of ships which are subsequently sent to the coast for being fitted up into ships, 406 miles away from the point at which steel is made. The adoption of such a method in this country would enable us to build ships in the quickest and most economic way. Indian Steel Works could roll the plates, cut, shear, punch and bend them to shape, before being sent on to the coast for being fitted up. These structural elements could be transported by rail to Calcutta, Vizagpatam or any other suitable port for being assembled. By adopting this method, large tools which these structural shops would require, could be concentrated at the Steel Works. Hydraulic rivetting could also be done there, thereby reducing the amount of hand rivetting, and obviating the necessity of elaborate fitting up at the point where the ships would be built. In fact, this would facilitate the building of ships wherever it was possible to make 10 or more ships of the same identical design. Engines of either the Diesel type, or the ordinary steam engines, could be built at foundaries, or at engineering works in different parts of India. It would also be possible to make turbines and boilers with steel plates made in the country. Should such a method of ship-building be

adopted, institutions like the proposed Technological Institute at Sakchi, could very well add to their curiculum a course of naval architecture and ship-designing.

An industry of such importance must receive every encouragement from Government in the shape bounties, subsidies, cheap transport of material, and land acquisition. The question of training men to man these ships will also have to be dealt with. It will be more and more difficult to obtain them from England; and steps must be taken as early as possible to provide for the training of Indian Marine Engineers and Seamen. It might be suggested in this connection that private steamship companies trading in Indian waters, and subsidized by the Government of India, like the P. & O. and the B. I. S. N. Companies, should take up Indian apprentices for being trained in Marine Engineering and Navigation. It would be also necessary for Government to establish a school of navigation in India, and a training ship. There is a large maritime population in the country and it will not be difficult to find from among them men to man ships built in India. Ship-building was a great industry in the country in the olden times; and even up to the middle of the last century, India built ships of war, and Indian ships carried Indian goods as far as England.

The Government of India have only recently issued a Communiquè, explaining the various ways in which they are prepared to help and encourage the construction, by private enterprise, of wooden sailing ships, for facilitating the coasting trade, and relieving to some extent the pressure on the Railway transport system. The experiments in Burma, Malabar and Porebunder are, no doubt, watched with interest. But whatever action the Government of India may take in the matter, there is a splendid opportunity for Native States with outlets on the coast, such as Cochin, Baroda, Travancore, and Bhavnagar to set the pace by giving substantial encouragement to individual enterprise in the development, or rather the resuscitation, of the wooden shipbuilding industry in india. One cannot help regretting that Mysore is so landlocked on all sides. If Mysore had only a sea coast, it would have set an example in wooden ship-building to the rest of India.

It is nevertheless to be regretted that Government do not yet see their way to encourage the building of *steel* ships in Indian ship-yards. The Communiquè says:

"For the construction of steel or composite vessels, it would be necessary to import from abroad all the steel plates and boilers, most of the propelling machinery, and the greater part of the structural steel-work, at a cost and an initial risk of loss in transit, which alone would be serious obstacles to the work; while the same materials can more rapidly be utilised for the same purpose, at or nearer to the place of their own production, by the use of timber for the construction of wooden ships."

Why should it be "necessary to import" all such equipment, when this country already possesses established Iron and Steel works which could very well roll—if the necessary machinery was secured, —steel plates for structural work and boilers, and generally make all other steel parts; and when there exist already a number of large foundries and engineering works which could make engines as well; leaving only such minor requirements as nautical instruments, to be imported? Surely, where there is a will, there is a way.

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Calcutta College of Commerce.

While one would think that it is already too late for the Universities of India to have faculties and colleges of Commerce, we are surprised to find the *Capital* pouring all its vials of wrath on the belated proposal of Sir Sarvadhikari to have a College of Commerce attached to the University. What is worse, in the Senate itself, the Director of Statistics, Mr. Findlay Shirras opposes the scheme and seems to take the cue from the *Capital*. It is not what we expect of him. His main reason seems to be that the Bengal Chamber of Commerce should be consulted and that the proposal should be referred to for their opinion. What has the Chamber of Commerce done till now for the Commercial education of the people and how are they interested in affording facilities for the commercial training of the people? Their interests lie in another direction and they ought to be the last to be consulted in this weighty matter. The Bengal Administration Committee laments the lack of commercial taste and knowledge on the part of its people. Still there are people questioning the need of a commercial college for a manufacturing city like Calcutta though in England every big manufacturing centre has a commercial college. We hope ere long the college will be established. The opposition of the *Capital* does not of course prevent it from shedding crocodile tears as when it writes as follows:— "What is happening even now? Calcutta is filling up with

Japanese, Dutch, and other foreign adventurers who have the commercial instinct to discover a great opportunity which will not be diminished by the combing out for the I. A. R. O. We have not in Calcutta, worse luck, British subjects like the Parsees, Khojas and Bhattias who are identified with the British trade and commerce of Bombay and could keep things going if every Englishman were pressed into the army." The *Capital* might henceforth support the training of the indigenous people in commercial limes to prevent the filling up of Calcutta with foreign adventurers, Meanwhile, we suggest to the British subjects like the Parsis, the Khojas and the Bhattias to really go to the help of the British in ousting the foreign adventurers. Here is a golden chance in Calcutta for the commercial races of Bombay, which they should not let slip.

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Fiscal Policy and the Reform Scheme

The Reform proposals are most disappointing from the point of view of the economic conditions and needs of India. They deliberately refrain from giving the people financial control in the supreme legislature. The popular cry against the existing system under which the economic interests of India are neglected has been a cry in the wilderness. India is to have no fiscal autonomy, her people are not to determine what kind of tariff they should have and her industries and commerce are not to be developed in consonance with popular wishes. The authors of the scheme have given expression to their sympathy with the desire of Indian educated people to promote the industrial prosperity of their country but have suggested no constitutional means by which this consummation can be achieved. It is certainly not the form of the constitution of a nation that alone makes or mars to economic development of its people. But that the policy of the state largely determines the direction and the pace of that development, is now universally admitted. The authors of the Report only content themselves with the remark that the change we propose in the Government of India will still leave the settlement of India's tariff in the hands of a Government amenable to Paliament and the Secretary of State.

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Who should bear additional Taxation?

How is the expenditure that will be entailed by the creation of the large army of five lakhs, going to be met, is a question that will suggest itself to many? The actual revenue of the Government of India is bound to exceed the calculations of the budget, but this surplus is not likely

to prove sufficient to meet the extra military burden that will be thrown upon the shoulders of the tax-payers. The defence of India against the threatened attack of the enemy is a paramount necessity and whatever money may be required for the purpose, must be found. The finance Member is obviously casting about him for means to tap new and fruitful resources of additional revenue. War profits occur first to one's mind as the fitted object to be attacked. Enormous profits have been made by certain classes of merchants, manufacturers and capitalists, and they must be made to return to the nation what they have taken from it in the favourable conditions created by the war. Vested interests will clamour and agitate, as tea planters have already been protesting against the application of the income-tax Act to them. But the Finance Member must courageously face the opposition. The masses cannot be subjected to additional taxation. Those who have profited by war conditions ought to contribute towards its expenses.

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Supply of Silver.

Monetary stringency still continues to cause considerable inconvenience to the public. Under arrangements made with the Government of the U. S. A. India has been receiving consignments of silver which is being turned into rupees as fast as it arrives. The total circulation of currency notes has steadily expanded, and the stock of rupees in the Reserve has at times been depleted to an unprecedented degree. The huge disbursements that are being made in the country for the purpose of war material as also the high prices ruling in the Indian markets require large quantities of the circulating medium, and as currency notes have a vogue mainly in the large cities, the demand for silver coins in the moffusil is enormous. The supplies of the white metal as they arrive from America are barely enough and the rupees are snapped up as they are turned out of the mints. Government, therefore, acted wisely in hastening to coins Mohurs in the Bombay mint instead of waiting for the plan of turning out sovereigns to materealize.

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Gold Mohurs.

The Mohurs were transmitted to the Punjab for financing the purchases of wheat and the sturdy Punjabee peasant has always shown a peculiar preference for gold coins. The timely arrival of the Mohurs must have eased the monetary stringency to some extent, and we are glad to notice that sovereigns also

are now being manufactured in the Bombay Mint. India has at last got a gold mint of its own in which a distinctive Indian gold coin as well as the sovereign is being struck. It may be hoped that this step will be the inauguration of a new era in the history of Indian currency and that what is to-day an emergency measure will become a permanent feature of our currency system. Though Lord Hardinge's Government had strongly urged the need of having a gold Mint in India, the proposal was discountenanced by the Chamberlain Commission. The war is a great hustler and many reforms which would have taken years to commend themselves to those in authority have become accomplished facts in as many months. The gold-exchange standard which certain publicists have recommended as the best standard for this country must now go and we must have a currency system broad based on the foundations of gold largely in active circulation.

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Hit Hard.

Those who are inclined to believe that the people in India have not felt the effects of the war, are sadly ignorant of the present situation in the country. It is indeed true that conditions here are much better than they are in the countries near the theatres of war, but what with high prices, shortage of all kinds of supplies, monetary stringency and a serious drought that threatens to develop into a famine in the Deccan looming on the horizon, the lot of the people has become extremely hard. Even the necessaries of life are being sold in the bazars at famine prices at the present moment and one does not know what the near future has in store. The middle class in particular is being hit hard and the prospect before it is cheerless.

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War Loan.

The amount of the war loan is steadily mounting up, and though the total does not promise to exceed or reach last year's figure, it is certain to approach it at some distance. Bengal led off in the provincial race at a bound, but Bombay which took some time to make a serious start, is fast making up for its initial slow pace. The proceeds of the war loan will help in relieving monetary stringency and in solving the exchange problem. Government has again appealed to the banks and the mercantile public to co-operate with it in using all available resources to finance exports of national importance.

VIEWS AND MEMORANDA.

THE STANDARD OF LIFE.

The expression standard of life means a certain minimum of the necessaries and comforts of life which an individual regards as indispensable for his own happiness. Without this, he feels miserable and he strains every nerve to try to get that minimum as far as his environment will allow it. Accordingly, there are various standards of life depending in each case upon several factors, the most important among these being education, temperament, sensibility to pleasurable emotions and a man's philosophy of life. It is needless to illustrate all these factors as a little reflection will reveal their causality with regard to the variety of the standard of life.

Some men are satisfied if they get enough nourishment for themselves and their families and the barest clothing that is required for purposes of decency and protection from the inclemencies of weather and the like, and an occasional experience of mild forms of amusement. Others require a large variety of choice viands and richer clothing, also in large varieties, and a perpetual or at least a frequent round of all sorts of amusements. Some are midway between these two extreme types. These three varieties of the standard of life may roughly be designated by the following expressive epithets. The ascetic; the luxurious; and the normal. These three divisions are only intended as aids to the focussing of the discussion round a few points; in actual practice there are still more numerous standards according to the infinite variety of human nature.

The classical economists in England lived in a time of industrial progress when new wants were rising and new modes of satisfying them were also increasing to an extent previously unknown in the history of Europe. Consequently, they acquired a bias in favour of a higher standard of life—of course "higher" being used as a relative term. Adam Smith inculcated a higher standard of life—especially with regard to the labouring classes. Malthus and Mill insisted upon the whole labouring population adopting a highter standard with a view to check the evil of over-population and thus ultimately to remedy the problem of low wages. Mill, in one place, says "It is but rarely that improvements in the condition of labouring classes do anything more than give a temporary margin which is speedily filled up by an increase of their numbers. The use they commonly choose to make

of any advantageous change in their circumstances is to take it out in the form which by augmenting the population deprives the succeeding generation of the benefit. Unless either by their general improvement in intellectual and moral culture or at least by raising their habitual standard of comfortable living they can be taught to make a better use of favourable circumstances, nothing permanent can be done for them".*

Cairnes and others, later on, adopted *in toto* the same panacea for the evils due to over-population.

This close connection between the standard of comfort and the Malthusian theory of population has given peculiar prominence to the question of the standard of comfort. To many the idea of the adoption of a higher standard of life appears a glowing vision in which there is not the least trace of the element of misery. It is regarded as removing all economic evils as if by force of magic. In the light of such exaggerated notions of the efficacy of a higher standard of life, it is necessary to clarify our notions about it and gauge the remedy at its true value. It is an undeniable fact that a higher standard operates so as to induce men to limit their offspring. If the parents have adopted a higher standard of life and wish to perpetuate it, they will be anxious not to increase the number of the family up to a point where deterioration of their adopted standard of life is sure to set in. With a lower standard the individual will multiply up to the point at which the lower standard could be kept up. The limit in the latter case will certainly be further than the limit in the former case; in other words, a larger family could subsist on a lower standard than the one which could subsist on a higher standard. So far as the limitation of population and the consequent increase of wages are concerned, the higher standard is an adequate cause.

But the question that has to be considered now is how far it is possible in a country like India to adopt a higher standard of life; and what are likely to be the collateral effects of such an adoption. One *sine qua non* of a higher standard of life is that soon after its adoption an income or wages sufficient to maintain the standard should be forthcoming. If not, the mere adoption would be either an unmeaning threat or would be a prelude to misery. As Prof. Gide says in criticizing Gunton's theory of wages "The principal argument against this theory consists in the fact that it mistakes cause for effect. Wages are not high because the standard of living is high, but *vice*

* (Principles of Political Economy Book I chapter X, section 3.)

versa. To get better wages a man must increase his productivity. When he has accomplished this he may expect to receive higher wages and raise his standard of living." (Principles of Political Economy p. 505—1909, edition). Suppose a railway audit office clerk were to raise his standard of life and decide to wear a flannel suit during office hours and instead of travelling to his office in a tram car decide to hire a victoria, this would not raise his wages since his usefulness to the Railway would not be altered a whit.

It would simply mean bankruptcy to him within a few months. It is only when all the audit office clerks have adopted a higher standard and have decided to refuse to serve unless wages adequate for their standard of life were given to them that his wages would rise. Not only that, but possible competitors to them must also have adopted their standard and decided not to work for their old wages. Otherwise, they will be ousted in a body by these competitors. Similarly, about all the other workers in society. Such a unity of action and refusal to serve except for wages decided upon by the employees themselves are essential conditions of the successful working of this roseate theory. These conditions are far from being realized in India at present. There are no trade unions nor is there any *esprit de corps* among the employees of any trade or profession. In such an environment the adoption of a higher standard would spell discomfort and misery.

Again, the adoption of a higher standard is not likely to conduce to the limitation of offspring in India. In India, questions of marriage and post-nuptial relations between the married pair are not decided by economic considerations. Postponement of marriage is rarely due to the feeling that a man has no right to bring children into the world unless he can maintain them according to the standard of life he himself has adopted. Under these circumstances, a higher standard has no effect upon the future population and would not therefore conduce to high wages as Mill intended it to do.

These considerations will bring home to the reader the difficulty of adopting western methods of amelioration in this country without due deliberation.

This caution is all the more necessary at the present juncture on account of the craze for a so-called higher standard of life, on the part of many people and also, on account of the loose way in which the word is bandied to and fro in drawing-room conversations. This impulse towards a higher standard is due to the impact of the western modes of life and the familiarity with the culture of the west.

Here, as elsewhere, we see the operation of the law of imitation which is all-pervasive in the field of sociology. But, whether the effects of a higher standard of life are beneficial or not depends upon the *modus operandi* of the standard and nothing can be said about it absolutely one way or the other.

In countries where the major portions of the goods consumed are of indigenous production, a higher standard, apart from its ethical effects, tends to produce a beneficial effect upon the industries of the country. It encourages the production of the various commodities which are connoted by the higher standard. But, in India, a higher standard implies the consumption of a variety of goods mostly imported from abroad, which do not give employment to indigenous labour. A glance at the homes of those who have adopted a higher standard would suffice to show the truth of this assertion. A higher standard in cities for instance is synonymous with the use of tooth-brushes and boots from America, lamps from Austria, cigars from Havana, crockery and cutlery from the United Kingdom, silks from France and Japan and choice dishes made from beet-root sugar and so forth. Such a higher standard redounds to the glory of the foreign trade of the country, but does not for the same reason, redound to the glory of the indigenous industry. In short, a higher standard for the present implies the adoption of material accoutrements of western civilization.

This training in the adoption of a higher standard ought to be carried into new channels by the substitution of commodities made in India for commodities imported from abroad. When the *modus operandi* is thus changed, many of the objections to a higher standard, at least from the economic point of view, would vanish. The variety of goods included in the higher standard would be made by local labour and thus create an enormous demand for it and thus solve the problem of low wages in India. It is said that low wages in India are due to the vast increase of population. But the expression, increase of population, is relative to the state of the industries of the country. The increase of population would cease to be an evil when enough employment is created for this redundant population. It is on account of the paucity of manufacturing industries that the redundancy of labour presses upon the means of subsistence.

A very high standard of life by stimulating unproductive consumption is likely to lead to depletion of capital by making saving impossible except in the case of persons with very large incomes. In

India, with its small supply of indigenous capital we ought to encourage saving among middle classes and upper middle classes, as their savings, although small individually, will in their totality assume a very large proportion. At a time when the country is crying for want of capital, anything that discourages saving should be guarded against. In England and France the total wealth is so large that there is no need to fear that a high standard of life would materially lessen the total amount of capital in the country. But, in India, where we have not yet learnt the art of exploiting other countries for our benefit, such a procedure is likely to be detrimental to the formation of one of the most important agents of production.

So far we have traced the effects of a higher standard on the industry of the country from a purely economic point of view. It is essential now to study the collateral effects of the adoption of a higher standard from the ethical and sociological points of view. It is here that our three-fold distinction of the standard of life will be useful in reviewing the gradual lifting from standard to standard. To those who are below the line of even the ascetic standard, an increase in the number of wants is a positive boon. In every-day language it means that those who do not get even the bare necessaries of life for themselves and their families, would gain by insisting upon obtaining these and refusing to work for anything less. Similarly, these men must insist upon having a decent amount of cubic space to live in and a minimum of what Prof. Marshall calls conventional necessaries, since if a labourer does not obtain wages enough to buy these he will buy them at the cost of the necessaries proper and hence would be practically underfed and underclothed. The ethical effects of such a change would be beneficial. The labourer will live a happier life and, instead of being a misanthrope and a budding socialist, he will be a useful and contented member of the body-politic.

The leap from the ascetic to the normal standard would also be equally beneficial. Instead of living an ascetic life which is likely to be very trying to his virtue, a man will have a surplus which he can utilize for giving the needed variety to life. Instead of the barest raiment, he will have a change of costume which although not absolutely necessary, is conducive to social conviviality and a sense of refinement. Plain living and high thinking is a good ideal but it is realized by very few. Considering therefore the frailty of man, the normal standard is the best for the majority of us to aim

at. It is free from the demoralizing effects of extreme asceticism and extreme luxury, and is the Aristotelian mean. It gives plenty but not surfeit. It engenders a sense of repose without producing the pride of wealth. It gives one the material requisites of civilization without making him a drone in society.

The evolution of the luxurious standard is beset with dangers. It produces vanity; a mad craving for wealth regarded as an end in itself. It leads one to despise his poorer fellow-beings and to subserve all people's interests to his own. It is not necessary here to recount the old tale of the canker of luxury. It is against the allurements of this last variety of the standard of life that we in India have to beware of. Instead of taking a leaf out of the book of western industrialism, some of us are fast drifting into the worship of the Almighty Dollar. Sir Rabindranath has sounded a note of warning against this insidious evil with his poetic ardour and it behoves us to listen to it. The present tendency is to adopt the luxurious standard under the misleading and ambiguous name of 'the higher standard'.

The question of the higher standard and increasing wants is ultimately resolvable into the question of mental repose and over-widening ambition. The idea that the perpetual increase of new wants constitutes civilization is positively mischieveous. If civilization means real culture, mental refinement and altruistic development, the increase of wants retards instead of furthering civilisation. This might have a ring of asceticism about it, but this condemnation of the modern idea of civilization is not asceticism. Asceticism is positive self-mortification, while the doctrine that we are trying to preach is a rational gratification of the self. The mad hunt after new wants and the means of gratifying them is irrational and it interferes with all higher culture.

It is not possible within the limits of one article to dilate on the Sociological effects of a higher standard but considering the importance of the discussion for a complete solution of the problem of the higher standard, we shall glance cursorily at its collateral effects. One good effect of the higher standard is that it stimulates the best effort on the part of a man to obtain the income necessary for maintaining the standard. This makes every man, alert and active, and thus aids the total production of the country. But this virtue has its counterpart. It keeps the man always restless and nervous, ever trying to reach the mirage which recedes from him at

every step. A few men's ambition is realised but hundreds of thousands are doomed to disappointment. The result is seen in the Western world in the increase of the number of cases of nervous breakedown, insanity, and even suicide.

Life which is glorious is made miserable simply for the sake of an illusory happiness; while, all along, real happiness is within their grasp if only there be a change in their psychology.

An inordinately high standard leads to postponement of marriage and all the evils consequent on this. A wife becomes a great luxury and hundreds are denied the blessings of love for want of the necessary means. This result is already observable in some of the communities in India who are adopting an ultra-fashionable mode of life. It is to be feared that the present regime of high standards and high prices might even conduce to the enforced celibacy of thousands as in Europe. This would be a great social evil. Instead of curing the evil when it makes its appearance, it is better to prevent it, betimes.

A higher standard adopted by certain leading classes leads to a rivalry between persons and classes to out-bid each other in extravagance. Every one vies with another in order to show himself off. A showy vulgarity becomes the order of the day and all sense of proportion is lost sight of. By exciting the envy of the poor it also engenders antagonism between class and class. When one section dresses too richly, the other sections of society become jealous of it and a set of feelings is aroused which easily germinates into wild and irresponsible conduct. Readers of Zola would easily remember his description of such a psychic transformation.

A high standard of life unaccompanied by high wages leads to the neglect of children. A disproportionate amount being spent on the necessaries and conventional necessaries of life, very little is left for the education of the children. Most people have already begun to find it difficult to defray the educational expenses of a couple of boys and a couple of girls, not to talk of those who have still larger families. At this stage the 'Feminist' would say that the mother should be made to earn and add to the income of the family. But as long as this is not within the range of practical politics, the problem remains a problem and is no nearer the solution.

V. N. GODBOLE.

REVIEWS.

Land and Labour in a Deccan Village. By Harold H. Mann D. Sc. (University of Bombay, Economic Series No. 1). **Bombay: Humphrey Milford,** Oxford University Press, pp. 184, Price Rs. 2.

India is predominantly an agricultural country and its economic prosperity is intimately bound up with its agriculture, which is the sole occupation of nearly three-quarters of its vast population. It is essential that a study of the economic conditions of India should include a detailed study of its agriculture and of its village communities. The appearance of a new book on Indian agriculture is therefore to be welcomed. Dr. Mann's "Land and Labour in a Deccan Village" is an attempt to place before us the main facts as regards the nature, vegetation, crops and cultivation of the land in a typical Deccan village. It embodies the results of careful and thorough investigation into the methods of cultivation and the raising of various kinds of agricultural produce in the village of Pimpla Soudagar, which is situated almost midway between Poona and Chinchwad. The various gentlemen who have assisted Dr. Mann in the work of investigation are all connected with the Poona Agricultural College, of which Dr. Mann is the head and guiding genius; naturally the trend of their work has been more scientific than economic. Parts of the book, especially Chapter IV, are too technical in their contents and treatment for the general reader, and a good deal of the matter contained in it might have been omitted with decided advantage. For the book has been published as the first of an Economic (*sic*) Series, and its purely scientific portions are, as it were, intruders. It would have been better if Dr. Mann had called in the aid of an economist to prune the luxuriance of its technical and scientific leaves.

This is the only criticism which I have to offer in connection with "Land and Labour in a Deccan Village". Otherwise, it is a book which should be read with profit and instruction by every student of the economics of India. Although it contains the results of investigation in only one village in the Deccan, it nevertheless tells us much that is fresh and interesting and confirms what is old and known. It contains data with the help of which we can pass from the particular to the general, and at the same time, find in its pages refreshing illustrations of general statements. We are told that Pimpla

Soudagar, the village investigated by Dr. Mann and his co-workers, is a non-irrigation village, *i.e.*, it depends for its agricultural prosperity chiefly on the rainfall. It is situated on the banks of a river, which is little else than a rocky torrent. The greater part of the village land, as is the case with most of the valley villages in this part of the Deccan, is composed of black soil. There are about twelve wells in the village and all of them are old beyond the memory of the present generation. The system of land revenue settlement is the "ryatwari." Eighty per cent. of the holdings are under two acres in size, while no less than sixty per cent. are less than five acres. "We have no reason to suppose that the case of Pimpla Soudagar is anything but typical. The excessive subdivision which has progressively increased during British rule is recognised as a very great evil. Keatinge has suggested that an economic holding of good dry land such as is most in this village in the western Deccan, and with an Indian *raiyat's* standard of life, would be about ten to fifteen acres.* Even, therefore, if each holding were held in one block it is evident what a large proportion (81 per cent.) are below this size. It means therefore that by far the large number of holdings could not under the most favourable circumstances, maintain their owners, but that they must rely on other occupations, either at home or away, to support themselves and their families, or else they must let their holdings." It is pointed out that excessive fragmentation, besides resulting in the abandonment of village life by an increasing number of people, effectually prevents cultivation on a large scale and makes the introduction of new and better ideas in agriculture very difficult. There is no doubt that improvement in the existing methods of cultivation can be effected without considerable expense to the cultivators.

Perhaps the most valuable portion of the work is Chapter VI, which deals with the people of the village. We are told that the whole population of Pimpla Soudagar is not engaged in agriculture, or in work more or less connected with agriculture. It would be interesting to know whether this state of things is typical in the Deccan; it seems to me that the proximity of Pimpla to Poona and the attractions of the ammunition factory at Kirkee are circumstances peculiar to villages which are near large towns, and in this respect, Pimpla can hardly be called a typical village. That the

* This sentence which is quoted *verbatim* from Dr. Mann's book obviously requires correction.

villagers are exceedingly poor and heavily indebted is shown by the authors' estimate of the total income of 103 families at Rs. 21,450 per annum, which works out at Rs. 218 per family. This leaves, of course, no margin for saving. The total indebtedness is over Rs. 13,000, of which nearly Rs. 6,000 are on landed security, the rest being advanced on personal security. The rate of interest varies between a minimum of 12 per cent. and a maximum of 72 per cent. The truth of the economic dictum that a man's expenditure is limited by his income is nowhere better illustrated than in the case of the inhabitant of Pimpla, who, according to the "family budget" compiled by Dr. Mann, requires for himself and his family Rs. 142 per annum for food, Rs. 48 for clothing and Rs. 10 for other expenses, which items, if added to the charges for *baluta* and interest, correspond to the annual income. If incomes and wants were equal, this would equalise expenditure with income; but, as it is, over half the population of the village is in an insolvent condition. The investigators conclude that "this economic inquiry into the condition of the people of a typical dry Deccan village is disheartening. The debts are a crushing load on the people, but even were they removed more than half the families would not still be able to pay their way."

The impression which is left on the mind by a perusal of Dr. Mann's very interesting and carefully written book is therefore one of stagnation and poverty. It is evident that the villagers should be freed from the burden of debt; that the excessive fragmentation of the land should be checked, and that improved methods of cultivation should be introduced. How far the conditions of the villagers of Pimpla are typical of the whole of the Deccan is a point which can only cleared up after further investigation of a like nature. I think Pimpla is too near a large town to be quite typical, and further investigation into a few other villages will be very useful. If the latter confirms the results and conclusions arrived at by Dr. Mann and his co-workers, it would appear that the situation in our rural districts, is one which requires to be carefully envisaged and dealt with.

In conclusion Dr. Mann and his co-workers should be congratulated on the successful achievement of a difficult task. There is no doubt that more intelligent work of this nature is needed all round. The collection of accurate facts and figures is the first step in the remedying of an evil, and the exhaustive information contained in this book will be very useful in suggesting measures for the improvement of Indian agriculture.

M. J. ANTIA.

Banks in India, 1916.—Issued by the Director of Statistics, Calcutta.

The Englishman's forté is his great liking for figures and statistics. Of late, the Amercan beats the Englishman in the greater realization of their value. Very interesting reports are published by the different bureaus in U. S. A. In one respect at least, India is not lagging behind, thanks to the push-and-go Director of Statistics who has infused not a little up-to-date method and alertness in the collection of statistics.

One of the most valuable of such reports is that, on Banks in India. The present report before us is for the year 1916. The first point that strikes one is the welcome addition of a map which shows as nothing else can, the huge gap of territory unprovided with any bank office, whatsoever. Drawing a line from Calcutta to Multan and another from Madras to Karachi, the whole stretch or belt of country between these two lines consisting of more than one -third of India and having the Native States of Haidarabad, Rajputana and Central India as well as the Central Provinces, some portion of Bombay and Madras, is mostly without Banks. Burma, too, has bank offices in 4 places only. In the whole country there are 71 Head Offices and 267 branches against the 9,000 offices in the United Kingdom and about 10,000 Banks in the United States. Our country is one of the most backward countries in the world in the matter of banking facilities and if we exclude the Presidency Banks, the Exchange Banks and also the two Indian Joint Stock Banks, Alliance and Allahabad, which are purely under European Control, the Indian enterprise is almost next to nothing and is a pitiable tale to unfold, not to speak of the banking failures of 1913. The number of towns in which banks and their branches are situated is 153 or 20 per cent. of the total number of towns having each a population of 10,000 and over according to the Census of 1911. There are 75 towns with a population of 50,000 and over. In 58 or 77 per cent. of these, there are banks. No Joint Stock banks exist in Assam and Burma with the exception of Rangoon. In Native States, these are with a few exceptions non-existent. I have already pleaded in a previous article for the starting of Banks by all the big Native States so that they may fill up the gap and provide the requisite banking facilities for the one third of India under them.

The three Presidency Banks enjoy the prestige of antiquity and of official dignity and though restricted by law, absorb considerably more of the banking business than the Indian Joint

Stock Banks. Comparing the years 1913 and 1916, the paid-up capital remained unchanged. The reserve and rest decreased, while deposits and cash balances increased. Total capital and reserves decreased from Rs. 7,48 lakhs to 7,36 lakhs or by 2 per cent., private deposits increased from 36,48 lakhs to 44,71 lakhs or by 23 per cent; and cash balances from 15,38 lakhs to 17,27 lakhs or by 12 per cent. In 1916, the deposits of the Presidency Banks were 49,91 lakhs or 33 millions as compared with 38,04 lakhs or 25 millions in the case of the Exchange Banks and 25,72 lakhs or 17 millions in the case of 48 Joint Stock Banks or 44 per cent., 33 per cent., 23 per cent. respectively. The Exchange Banks with their head offices outside India are powerfully competing with the Presidency Banks and the Indian Joint Stock Banks in the matter of raising deposits and in ordinary banking business. Their deposits have considerably increased during the last few years. The aggregate paid-up capital and reserves of the ten Exchange Banks amounted to £38 millions, while the deposits in India were £25 millions and cash balances in India approximately £7 millions.

Our primary concern is and must be with the Indian Joint Stock Banks and their development, and the progress of banking in this country depends on their successful management. While greatly deploring the banking failures which were due to speculation or to systematic fraud, I hope the lessons learnt at such a terrible cost will not be lost on the country. As the country is really in need of banking facilities, the Indian Banks, if widely managed and extended, have a great field before them. There are, at present, as given in the memorandum, 68 Joint Stock Banks with 160 branches. Returns have been received from 48 such Banks with 149 branches. The aggregate capital and reserve of these 48 Banks amounted to 5,24 lakhs, the deposits to 25,72 lakhs and cash balances to 6,20 lakhs. The Banks are divided into (*a*) banks with a Capital of 5 lakhs and over (*b*) banks with a capital of 1 lakh and less than 5 lakhs of Rupees. The figures in 1916 were :—

	Class I. 20 banks. (Rs. lakhs).	Class II. 28 banks. (Rs. lakhs).
Capital and reserves ...	4,61	63
Deposits	24,71	1,01
Cash balances	6,03	17

Coming to capital and reserves, we find there is one misleading feature or mistake into which the Director of Statistics has fallen unintentionally or because he could not help it (*i.e.*), when he includes the capital and reserves of Exchange Banks to the credit of India. The capital and reserves of Presidency Banks are 7,35 lakhs, of Exchange Banks 56,89 lakhs and of Indian Joint Stock Banks 5,24 lakhs. The Memorandum says, 'thus the capital and reserves of 61 Banks in India amounted to Rs. 69,50 lakhs or £46 millions. The capital and reserves of 65 English banks (including the Bank of England) in 1916 amounted to £136 millions. The capital and reserves of Indian banks are thus Rs, 2 (2s. 8d.) per head of population as against Rs. 44 (£3) in the United Kingdom.' Since very little of the capital of the Exchange Banks is held in India, the Director of Statistics, I venture to think, should not have pressed into service the capital and reserves of Exchange Banks for augmenting the total. It will not be right to separate Indian capital and English capital of Banks started in India, but surely the inclusion of capital and reserves of Exchange Banks is not justified. Hence, omitting these the capital and reserves per head in India come to the low figure of 6½ annas as against Rs. 44 in the United Kingdom. This must be taken to heart by all well-wishers of the Country.

As regards deposits, compared with pre-war year 1913, they increased by 18 per cent. in the Presidency Banks, by 33 per cent. in the Exchange Banks and 10 per cent. in the Joint Stock Banks. The total deposits in all banks increased from Rs. 97,51,04,000 (£65,007,000) to Rs. 1,13,67,51,000 (£75,783,000). In the United Kingdom deposits in the same period increased from £1,142 millions to £1,654 millions. In other words, the increase in the former case was 17 per cent. and in the latter case, 45 per cent. Thus the deposit per head in India is ¼ £ as against £ 40 in England. It will be interesting also to see how much of the £75 millions deposit in India, is Indian deposit. I would suggest to the Director, if possible, to publish the deposits of Indians separate. It is with no ulterior motive I suggest this. The banking habit has got to be ingrained in the people. Everywhere there is a cry against the vicious habit of hoarding and feeling shy of paper currency. Nothing is more calculated to wean away the people from the pernicious habit of hoarding ingots of gold and silver than familiarising them with banks. The Indian people must learn the value of and the economy in, using cheques. For this, we must know how far Indian Deposits are increasing. Whereas in America, the farmer has so appreciated

the value of banks and the banks are so many and in so great a competition that there is the evil of overdrafts. Here we are in the other extreme.

I shall conclude this with one or two suggestions. The greatest good the Government can do is to actively help in the spreading of banks—of course, with closer supervision. It is no use having small banks or pigmy banks as the Director of Statistics rightly calls them; but we should have big banks having branches spread throughout the country. It is to be regretted that there is no Indian Bank that is doing exchange business except the recently started Tata Industrial Bank. I hope prominent Indian Banks will establish branches outside India and prominent Indian and European merchants will lend all their assistance. It is not a matter for congratulation that, with all her vast trade of 400 crores no Indian Bank does Exchange business, just as there is no Indian Insurance Company, Fire or Life, which does business outside India, though our country is flooded by the Insurance Companies of all the other countries.

T. S. KRISHNAMURTHI.

Our Money and the State.—By Hartley Withers. London: John Murray, 1917, pp. 122, Price 3s. net.

This is a small book which has grown out of lectures which the author delivered at the London School of Economics in 1917. The author in the first chapter raises the question why should Government take our money? And after discussing the pros and cons with special reference to the views of Herbert Spencer, Huxley and Adam Smith, he arrives at the conclusion that the State should spend money on the defence of property from civil war and foreign enemies, on defence of the national honour, on the increase of the material resources of the country and on public health. In chapter 2, 3, and 4 the author considers the means by which the State takes money from us for public purposes and enumerates them as follows:—

(1) By borrowing it and then taxing us to pay the lenders;

(2) By diminishing the buying power of our money by increasing its volume, with or without the help of bankers.

(3) By taxes.

Incidentally it is shown how in war time taxes have advantage over borrowing. In the concluding chapter the author touches on the problem of State enterprise but hesitates to give a definite reply. The book is a timely publication and can be read with profit by students of finance.

C. S. D.

IMPORTS.	1915–16.	1916–17.	1917–18.
APRIL—MARCH.	Rs.	Rs.	Rs.
I.—Food, Drink and Tobacco—			
Fish (excluding canned fish)	24,68,322	17,87,959	13,71,549
Fruits and Vegetables	1,24,04,237	1,16,91,513	1,03,17,728
Grain, Pulse, and Flour	81,39,791	18,23,784	7,73,086
Liquors	1,60,40,357	2,00,14,066	2,16,12,871
Provisions and Oil Man's Stores	2,11,27,236	2,80,91,259	1,77,40,777
Spices	1,87,20,824	1,94,[illegible]4,048	1,90,13,630
Sugar	16,61,77,968	15,45,03,151	14,89,64,601
Tea	33,80,290	26,84,769	60,82,921
Other Food and Drink	1,94,37,348	1,99,10,754	2,32,63,811
Tobacco	80,15,151	1,25,13,231	1,69,96,835
TOTAL ...	27,59,12,524	27,24,74,534	26,61,37,809
II.—Raw Materials and Produce and articles Mainly unmanufactured—			
Coal, Coke and Patent Fuel	27,16,286	15,44,470	7,43,225
Gums, Resins and Lac	18,90,413	28,91,118	29,15,184
Hides and Skins, Raw	14,14,681	28,91,118	17,74,162
Metallic Ores and Scrap Metal	4,91,670	3,76,759	2,21,042
Oils	4,24,73,450	4,66,29,828	3,75,89,552
Seeds	20,70,788	25,23,353	92,46,019
Tallow, Stearine and Wax	19,44,876	22,67,060	10,90,160
Textile Materials	1,50,82,030	1,72,88,809	1,89,64,277
Wood and Timber	67,60,914	1,01,40,892	1,15,41,154
Miscellaneous	1,04,17,556	1,42,25,826	1,27,73,627
TOTAL ...	8,52,62,664	10,01,73,903	9,68,58,412
III.—Articles wholly or Mainly Manufactured.			
Apparel	1,76,38,839	2,12,14,746	1,57,96,426
Arms, Ammunition and Military Stores ...	29,36,314	35,32,190	28,87,839
Carriages and Carts including Cycles and Motor Cars	1,58,69,801	2,42,60,580	1,01,09,073
Chemicals, Drugs and Medicines... ...	2,87,27,255	3,50,87,335	4,30,09,971
Cutlery, Hardware, Implements (except Machine tools) and Instruments ...	4,08,81,411	5,29,21,958	4,81,50,440
Dyes and Colours	1,29,67,195	2,33,27,155	2,40,59,547
Furniture, Cabinetware and Manufactures of Wood	25,33,054	34,86,568	29,15,557
Glassware and Earthenware	1,55,02,251	2,00,81,001	2,01,84,696
Hides and skins, dressed, and Leather ...	33,32,984	40,22,575	38,31,878
Machinery of all kinds including belting for Machinery	5,25,71,031	6,01,41,971	5,23,50,496
Metals, Iron and steel and Manufactures thereof	9,18,52,167	8,86,81,023	7,74,05,746
Metals other than Iron and steel, and Manufactures thereof ...	1,95,91,173	1,82,99,023	2,51,62,690
Paper, Pasteboard and Stationery ...	2,01,03,989	3,10,64,280	2,95,58,593
Railway Plant and Rolling Stock ...	4,21,85,207	1,56,85,763	49,63,358
Yarns and Textile Fabrics	48,69,04,768	60,37,73,469	63,34,38,429
Miscellaneous	8,15,42,077	8,90,39,456	10,54,13,543
TOTAL ...	93,51,29,516	1,09,46,19,093	1,09,92,38,282
IV.—			
Miscellaneous and unclassified	2,35,57,739	2,89,52,663	3,66,15,947
TOTAL ...	1,31,98,62,443	1,49,62,20,193	1,49,88,50,450
Government Stores	6,18,30,589	10,61,36,952	13,92,86,342
GRAND TOTAL ...	1,38,16,93,032	1,60,23,57,145	1,63,81,36,792

Exports.	1915-16.	1916-17.	1917-18.
APRIL—MARCH.	Rs.	Rs.	Rs.
Total Foreign Merchandise	4,84,59,336	7,73,31,525	8,05,83,217
Indian Merchandise—			
I.—Food, Drink and Tobacco—			
Grain, Pulse, and Flour	29,07,11,912	34,90,43,488	52,31,73,827
Other Food and Drink	23,55,48,297	20,90,44,699	20,82,89,834
Tobacco	44,00,856	51,99,541	49,14,665
TOTAL ...	53,06,61,065	56,32,87,728	73,63,78,326
II. Raw Materials and Produce and articles Mainly unmanufactured—			
Coal, Coke and Patent fuel	73,75,007	76,21,928	23,86,967
Gums, Resins and Lac	1,76,76,716	2,87,91,096	3,86,53,407
Hides and Skins, raw and dressed ...	9,79,52,887	14,40,85,981	7,83,79,442
Metallic Ores and scrap metal for remanufacture	1,39,22,387	2,42,16,615	2,06,49,782
Oils	1,21,88,572	1,51,07,236	1,98,96,620
Seeds	10,12,26,021	16,44,32,152	7,88,46,507
Tallow, Stearine and Wax	5,54,093	11,36,304	8,80,668
Textile Materials	45,66,97,021	56,31,03,130	47,55,61,760
Wood and Timber	78,74,217	69,11,527	41,16,701
Miscellaneous	2,57,40,866	3,25,98,155	3,41,79,841
TOTAL ...	74,12,07,787	98,80,04,174	75,35,51,715
III.—Articles wholly or Mainly Manufactured.			
Apparel	8,63,785	13,73,789	10,47,499
Arms, Ammunition and Military Stores ...	783	865	1,700
Carriages and Carts including Cycles and Motor Cars	11,532	36,723	42,313
Chemicals, Drugs and Medicines ...	2,44,13,800	3,73,87,207	3,72,36,310
Cutlery, Hardware, Implements, (except Machine tools) and Instruments ...	4,27,047	5,40,854	2,33,896
Dyes and Colours	3,13,98,999	3,00,71,826	2,11,42,834
Furniture, Cabinetware and Manufactures of wood	3,71,338	3,18,884	2,39,626
Glassware and Earthenware	94,083	1,29,443	1,19,887
Hides and Skins, tanned and Leather ...	5,63,81,582	9,43,98,246	6,36,83,335
Machinery of all kinds including belting ...	11,805	76,942	39,939
Metals and Manufactures thereof... ...	79,35,294	1,28,59,692	85,37,289
Paper, Pasteboard and Stationery ...	98,550	3,20,511	3,33,923
Railway Plant and Rolling Stock ...	1,99,532	1,45,950	1,32,243
Yarns and Textile Fabrics	47,86,84,773	54,79,34,709	55,02,45,045
Miscellaneous	3,12,47,146	3,28,44,922	3,00,01,652
TOTAL ...	63,21,42,049	75,84,40,563	71,30,37,491
Miscellaneous and unclassified	2,13,31,958	2,18,03,343	1,96,83,137
Total Indian Merchandise	1,92,53,42,859	2,33,15,35,808	2,22,26,53,669
Government Stores	2.10,01,780	2,16,04,071	2,97,74,193
GRAND TOTAL ...	1,99,48,03,975	2,43,04,71,404	2,33,30,08,979

A Summary of England's War-time Finance.

August 1, 1914 to May 18, 1918.

	£.		£.
Total spent	7,330,327,019	Raised by Revenue ...	1,869,041,918
Increase in balances ...	9,847,393	Net borrowings... ...	5,471,132,494
Total ...	7,340,174,412	Total ...	7,340,174,412

The expenditure includes £ 1,526,000,000 as loans to the Allies (£ 1,332,000,000) and Dominions (£ 194,000,000).

Gold Standard Reserve.

Statement showing the form in which the balance of the reserve was held on April 30, 1918:—

	Rs.	Rs.
In India...		*Nil.*
In England—		
Cash placed by the Secretary of State for India in Council at short notice	9,00,01,350	
British and Colonial Government Securities (value as on March 31, 315)...	39,01,03,215	
British Government Securities since purchased (cost price)	3,77,74,455	
		51,78,79,020
		51,78,79,020

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War Finance. By Prof. J. Shield Nicholson, (P. S. King & Son, London, Net 10/6); 1917.

The System of Financial Administration in Great Britain. By W. F. Willoughby; W. W. Willoughby; S. M. Lindsay. For the Institute for Government Research, (D. Appleton & Co., New York).

The Aims of Labour. By Rt. Hon. Arthur Henderson (Headley, Net 1/–.)

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Economic Effects of the War upon Women and Children in Great Britain. Preliminary Economic Studies of the War. Carnegie Endowment for International Peace (Division of Economics and History). By Mrs. Irene Osgood Andrews. Oxford University Press, New York.

England's Debt to India. A Historical Narrative of Britain's Financial Policy in India. By Lajpat Rai (B. W. Herebrch, New York, Net 10/–.)

Industry and Finance. War expedients and Reconstruction. Edited by A. W. Kirkaldy (Pitman, Net 4/6).

The Modern Bank. By A. K. Fiske A. M. (D. Appleton. New York and London).

The Control of the Drink Trade. A contribution to National Efficiency. By Henry Carter, 1915—17. (Longmans, Net 7/6.)

The Catalogue of Books in the Economic Conference Library. Bangalore, 1915.

Occupations from the Social Hygienic and Medical points of view. By Sir Thomas Oliver, M.A., M.D., Cambridge University Press.

VOL. I.] SEPTEMBER, 1918. [NO. III.

JOURNAL

OF THE

INDIAN ECONOMIC SOCIETY.

SMALL HOLDINGS IN INDIA AND THEIR REMEDIES.

(Concluded from Vol. I. No. 2. Page 88.)

IV.

Granted that enlargement of holdings is as important as their consolidation we will now turn to the discussion of regulating their size. It is desired by all interested in our agriculture that our holdings should be economic holdings. We would have been more thankful to the inventors of this new, precise and scientific terminology had they given us a precise and scientific definition of an economic holding. On the other hand, it is believed that a large holding is somehow an economic holding. It may be said that even Prof. Jevons has fallen a victim to this notion. For when discussing what the size of a holding should be he dogmatically states that in the consolidated village the mode should be between 29 and 30 acres.* But why should the mode be at this point and not at 100 or say 200? We might imagine Prof. Jevons to reply that his modal point is placed at that particular acreage because it would produce enough for a farmer to sustain a higher standard of living. Raising the general standard of living in India is the *one* string on which Prof. Jevons harps even to weariness throughout his pamphlet.† The error underlying this doctrine, we shall consider later on. It is enough to say that he does not give any sound economic reason for his modal farm.

The case with the Baroda Committee is much worse. Prof. Jevons at least sticks to one definition of an ideal economic

* Opt. Cit. chart on p. 38.

† Opt. Cit. Introduction.

holding; but the Report of the Baroda Committee suffers from a plurality of definitions. While commenting on the size of an average holding in the state as is summarized in the above table, it should be noted that the Committee, though it desired consolidation, was perfectly satisfied with the existing size of the holding as is clear, from the following:—

"If the average holding of a Khatedar was a compact field of these figures, the situation would be an ideal one and would not leave much to be desired." *

But absent-minded as it were, the Committee, without any searching analysis of the question it was appointed to investigate and report upon, lays down that:—

"An ideal economic holding would consist of 30 to 50 bighas of fair land in one block with at least one good irrigation well and a house situated in the holding." †

If the size of existing holdings is an ideal size why should they be enlarged? To this, the Committee gives no answer. But this is not all. The Committee does not even adhere to the *quantitative* limit it has already set down to its ideal economic holding. When it comes to discuss the project of re-arrangement of the scattered fields of the village on the principle of "Economic unit" it posits a third ideal of an economic holding. To realize this ideal it says

"Each of these new plots must be of such a size, as having regard to the local conditions of soil, tillage, etc., to form an Economic field, *i.e.*, a parcel of land necessary to keep fully engaged and support one family." ‡

Thus with perfect equanimity (!) the Baroda Committee holds, not too fast, to three notions of an ideal economic holding. No wonder then that the Report of the Committee is a model of confused reasoning though it is a valuable repository of facts bearing on the subject.

According to the Hon. Mr. Keatinge an economic holding is

"a holding which allows a man chance of producing sufficient to support himself and his family in reasonable comfort, after paying his necessary expenses."§

* Ibid p. 4.

† R. B. C. p. 31.

‡ Ibid p. 53.

§ Rural Economy in the Bombay Deccan." p. 51.

His definition of an economic holding will be accepted, we may expect, by the Baroda Committee; for, it does not differ from its own, given above as third in order. Assuming they agree, we may now proceed to see how far tenable this definition is.

It is plain that these definitions including that of Professor Jevons view an economic holding from the stand-point of consumption rather than of production. In this lies their error; for consumption is not the correct standard by which to judge the economic character of a holding. It would be perverse accounting to condemn a farm as not paying because its total output does not support the family of the farmer though as a pro rata return for each of his investments it is the highest. The family of a farmer can only be looked upon in the light of so much labour corps at his disposal. It may well be that some portion of this labour corps is superfluous, though it has to be supported merely in obedience to social custom as is the case in India. But if our social custom compels a farmer to support some of his family members even when he cannot effectively make any use of them on his farm we must be careful not to find fault with the produce of the farm because it does not suffice to provide for the workers as well as the dependents that may happen to compose the family. The adoption of such an accounting system will declare many enterprises as failures when they will be the most successful. There can be no true economic relation between the family of the entrepreneur and the total out-turn of his farm or industry. True economic relation can subsist only between the total out-turn and the investments. If the total out-turn pays for all the investments no producer in his senses will ever contemplate closing his industry because the total out-turn does not support his family. This is evident; for though production is for the purpose of consumption it is for the consumption only of those who help to produce. It follows, then, that if the relation between out-turn and investments is a true economic relation, we can only speak of a farm as economic, *i. e.*, paying in the sense of production and not in the sense of consumption. Any definition, therefore, that leans on consumption mistakes the nature of an economic holding which is essentially an enterprise in production.

Before going further, we must clear the ground by a few preliminary remarks to facilitate the understanding of an economic holding from the standpoint of production.

It must be premised at the outset that in a competitive society the daily transactions of its members, as consumers or producers, are

controlled by a price régime. It is production, then, in a price régime that we have to analyse here for our purpose. In the main the modern process of production is captained by the entrepreneur, is guided and supervised by him and is worked out through him. All employers of labour or hirers of instrumental goods are entrepreneurs. His computations run, as they must, in a pecuniary society, in terms of price-outlay as over against price-product, no matter whether the prospective product is offered for sale or not. The entrepreneur, in producing for gain, apportions his outlays in varieties of investments. These investments, the same as factors of production or costs to the entrepreneur, have by tradition been confined to wages (labour) profits, rent (land) and interest (capital). Industrial facts do not support this classification. There are many other factors, it is contended, which as they share in the distributive process must have functioned in the productive process, in some way immediate or remote. But it is immaterial how many factors there are and whether they differ in kind or degree. What is important for the purpose of production is the process of combining them.

This combination of necessary factors of production is governed by a law called the law of proportion. It lays down that disadvantage is bound to attend upon a wrong proportion among the various factors of production employed in a concern. Enlarged, the principle means that as a certain volume of one factor has the capacity to work only with a certain volume of another to give maximum efficiency to both, an excess or defect in the volume of one in comparison with those of the others will tell on the total output by curtailing the efficiency of all. Having regard then to this interdependence of factors, an economically efficient combination of them compels the producer if he were to vary the one to vary the rest correspondingly. Neither can it be otherwise. For, the chief object of an efficient production consists in making every factor in the concern contribute its highest; and it can do that only when it can co-operate with its fellow of the required capacity. Thus, there is an ideal of proportions that ought to subsist among the various factors combined, though the ideal will vary with the changes in the proportions.§

§ This description of the process of production is pieced together from the remarks of Prof. H. J. Davenport in his masterly treatise "The Economics of Enterprize" New York. Macmillan, 1913. In this connection see also the able paper by Prof. Henry C. Taylor on "Two Dimensions of Productivity" read before the 29th Annual Meeting of the American Economic Association held in December 1916 and the remarks on the same by Prof. A. A. Young. Both these will be found in the American Economic Review for March 1917.

These proportions it must be acknowledged are affected by the principle of substitution chiefly brought into play owing to variations in the prices of the factors. But this principle of substitution is too limited in its application to invalidate the law of proportion which is *the* law governing all economic production and which no producer can hope to ignore with impunity.*

Bringing to bear the above remarks regarding production on the definition of an economic holding, we can postulate that if agriculture is to be treated as an economic enterprise, then, by itself, there could be no such thing as *a* large or *a* small holding. To a farmer a holding is too small or too large for the other factors of production at his disposal necessary for carrying on the cultivation of his holding as an economic enterprise. Mere size of land is empty of all economic connotation. Consequently, it cannot possibly be the language of economic science to say that a large holding is economic while a small holding is uneconomic. It is the right or wrong proportion of other factors of production to a unit of land that renders the latter economic or uneconomic. Thus a small farm may be economic as well as a large farm; for, economic or uneconomic does not depend upon the size of land but upon the due proportion among all the factors including land.

An economic holding, therefore, if it is not to be a hollow concept, consists in a combination of land, capital and labour, etc., in a proportion such that the pro rata contribution of each in conjunction with the rest is the highest. In other words to create an economic holding it will not do for a farmer solely to manipulate his piece of land. He must also have the other instruments of production, required for the efficient cultivation of his holding and must maintain a due proportion of all the factors for, without it, there can be no efficient production. If his equipment shrinks, his holding must also shrink. If his equipment augments, his holding must also

* Some economists who hold that it is the law of Diminishing Returns that governs agricultural production will demur to the universal applicability that is claimed for the Law of Proportion. Briefly stated the Law of Diminishing Returns asserts that additional 'doses' of capital and labour administered to a given piece of land will be responded to by a less and less yield. This means that if only the *non-land* expense of production is doubled there results less than a doubled product. But if this is the fact that is intended to be generalized by the Law of Diminishing Returns then there is nothing in it that is peculiar to agricultural production. If the expense to the land be doubled but the land not doubled it is certain that the extra return will fall short of the increased expense. This is simply another way of saying that if the returns are to grow *all* the factors must be increased in proportion. But so stated is not the Law of Diminishing Returns a confused version of the Law of Proportion?

augment. The point is that his equipment and his holding must not be *out* of proportion to each other. They must be *in* proportion and must vary, if need be, *in* proportion.

The line of argument followed above is not without support from actual practice. It is happy from an economist's point of view, to find it recognized and adopted in India itself by the fathers of the Survey and Settlement System in the Bombay Presidency. The famous Joint Report (1840) contains an illuminating discussion of the problem. The question before the officers deputed to introduce the Survey System in the Deccan was how to levy the assessment. Was it to be a field assessment or an assessment to be placed on the whole lands of the village or on the entire holdings of individuals or co-parceners, whether proprietors or occupants. That after much deliberation the system of field assessment was finally adopted is known to many. But as the reasons that led to its adoption are known only to a few the following explanatory paras from the Joint Report will be found to be both interesting and instructive :—

"Para 6. That one manifest advantage of breaking up the assessment of a village into portions so minute [as indicated by a survey number] is the facility it affords to the cultivators of contracting or enlarging his farm from year to year, according to the fluctuating amount of agricultural capital at their disposal which is of incalculable importance to farmers possessed of so limited resources as those of the cultivating classes throughout India.

"Para 7. The loss of a few bullocks by disease or other causes may quite incapacitate a ryot from cultivating profitably the extent of land he had previously in village and, without the privilege of contracting his farm, and consequent liabilities on occasion of such loss, his ruin would be very shortly consummated."*

Judging in the light of this conclusion the proposal to regulate the size of holdings appears ill-considered and futile. For as Prof. Richard T. Ely observes,†

"Obviously no simple answer can be given to the question [as to what should be the size of a farm]. The value of land or the rent it will bring is perhaps the most important factor.....In addition to the factor of

* Survey Settlement Manual Bombay Presidency 1882. P. 3.

† Outlines of Economics. P. 531-32. Italics ours.

rent ,the amount of capital that he can command, the kind of farming in which he is most skilled, the character of the labour he can secure, the proximity of markets, and the adequacy of transportation facilities, all must be taken into account by the farmer in determining how large a farm he will attempt to manage and how intensively he will farm it.

"*This question is primarily one of private profit, which the individual must decide for himself,* but the legislator and the scientific student can be of some assistance in helping to develope that most difficult branch of commercial science —farm accounting—and in keeping the farmer alive to those charges in prices, wages, and transportation charges to which the farm organization must adjust itself."

To those who have the temerity to fix the size of a holding Prof. Ely's well-considered opinion will bring home that in spite of good intentions their vicarious mission will end in disaster; for none but the cultivator can decide what should be the size of his holding. They would do well to remember that the size of his holdings will vary in time. Consequent to the changes in his equipment with which he has to adjust the size of his farm, at one point in time he will decide in favour of a small, as at another he will decide in favour of a large holding. He would therefore be a poor economist who would legally fix the size of the holding which in the interest of economic production must be left to vary when variation is demanded. By fixing the size of a holding he can only make it a large holding but not an economic holding. For an economic holding is not a matter of the size of land alone but is a matter of the adjustment of a piece of land to the necessary equipment for its efficient cultivation.

V.

The proposal to enlarge the existing holdings which is brought forward as a cure to the ills of our agriculture can be entertained only if it is shown that farms have diminished in size while the agricultural stock has increased in amount. Facts regarding the size of farms have already been recorded. It only remains to see if the agricultural stock has increased. Mr. K. L. Datta in his exhaustive survey says :

"178. Most of the Indian witnesses, whom we examined, appeared to be under the belief that there has been a decrease in the supply of agricultural

* Report on the Enquiry into the Rise of Prices in India, 1914. Vol. I pp. 66-67. Italics ours.

products, owing to the inefficient tillage of land. It was said that land is not now cultivated as carefully and efficiently as before, owing to the *scarcity and dearness of plough cattle* and labour. In order to effect a saving in the cost of cultivation, cultivators do not also plough their lands as often as they did before, and manuring and weeding, as also the amount of irrigating where wells are used for the purpose, have all been reduced."

"179. As regards the scarcity of plough cattle.....[the] figures bear testimony to the deplorable effects of famine, the inevitable result of which has always been to reduce the number of cattle, though the deficiency is generally made good in a few years if otherwise favourable. The number of plough cattle in the latest year [1908–09] included in the statement was lower than in the commencement [1893–94], in some of the circles namely Assam, Bundelkhund, Agra Provinces-North and West, Gujrat, Deccan, Berar, Madras-North and Madras-West. Although great reliance cannot be placed on these statistics, they can be accepted as showing that in some areas at any rate there has been a dearth of plough cattle."

Regarding the existence of capital Mr. Elliot James says

"The ryots have a keen eye to the results of a good system of farming as exhibited on model farms, but they cannot derive much good from the knowledge, though they may take it in and throughly understand that superior tillage and proper manuring mean a greater outturn in crops. Their great want is *capital.*"*

The farmer knows, says the same author, that his agricultural equipment is inefficient and antiquated but he cannot substitute better ones in its place for

"A superior class of cattle and superior farm impliments mean to him so much outlay of what he has not—Money."

Similar facts for the Baroda State have been collected in another connection by Mr. M. B. Nanavati, Director of Commerce and Industry. But unfortunately he did not bring his knowledge of such facts to bear upon the conclusions of the Committee for the Consolidation of holdings in the State of which he was also a member, apparently thinking that the size of a holding bore no relation to the instruments of production. He bemoans that

"The farmers are not fully equipped with draught-cattle. They have to-day [1913] 3,34,901 bullocks, etc., for use on farms, that is one pair for 36 bighas of land. On an average a pair of good bullocks can cultivate 25 bighas of land. But the present breed has much deteriorated and one pair is supposed to cultivate 20 bighas at the most, while the present actual average comes to

* Indian Industries p. 6.

about 36 bighas. Under the circumstances it is not likely that ploughing can be deep. It must be like scratching the surface. The small cultivators do not possess any draught-cattle or at the most a single one and cultivate land in co-operation with their friends similarly situated. As for farm implements there are 1,54,364 ploughs in the State, *i. e.*, one for two Khatedars. It must be understood here that the number of cultivators and tenants is much more than three lacks. Every one of them needs full equipment. Therefore actually the average must be much smaller than shown above."§

In fact the equipment for agricultural production in the State has considerably deteriorated since 1898 as shown by the table* below :

Given this state of affairs can we not say with more propriety that not only the existing equipment is inadequate for the enlarged holdings but that the existing holdings, small as they are, are too big for the available instruments of production other than land ? *Facts such as these interpreted in the light of our theory force upon us the conclusion that the existing holdings are uneconomic, not, however, in the sense that they are too small but that they are too large.* Shall we therefore argue that the existing holdings should be further reduced in size with a view to render them economic in the sense in which we have used the term ? Unwary readers might suppose that this is the only logical and inevitable conclusion—a conclusion that is in strange contrast with the main trend of opinion in this country. Contrary, no doubt, the conclusion is; but it is by no means inevitable. For, from our premises we can with perfect logic and even with more cogency argue for increase in agricultural stock and implements which in turn will necessitate enlarged holdings which will be economic holdings as well.

Consequently the remedy for the ills of agriculture in India does not lie primarily in the matter of enlarging holdings but in the matter of increasing capital and capital goods. That capital arises from saving and that saving is possible where there is surplus is a commonplace of political economy. Does our agriculture—the main-

§ Report on Agricultural Indebtedness in the Baroda State 1913—Para 35.

* Ibid.

	Ploughs.	Carts.	Plough Cattle.	Other Domestics.
1898	1,75,989	.....	4,15,089	5,70,517
1910	1,51,664	68,946	3,34,801	5,09,416

stay of our population—give us any surplus? We agree with the answer which is unanimously in the negative. We also approve of the remedies that are advocated for turning the deficit economy into a surplus economy, namely by enlarging and consolidating the holdings. What we demur to is the method of realizing this object. For we most strongly hold that *the evil of small holdings in India is not fundamental but is derived from the parent evil of the mal-adjustment in her social economy.* Consequently if we wish to effect a permanent cure we must go to the parent malady.

But before doing that we will show how we suffer by a bad social economy. It has become a trite statement that India is largely an agricultural country. But what is scarcely known is *that not-with-standing the vastness of land under tillage, so little land is cultivated in proportion to her population.*

Mulhall's figures for the year 1895 clearly demonstrate the point.

Acres per inhabitant in 1895.

Great Britain.	Ireland.	France.	Germany	Russia.	Austria.	Italy.	Spain and Portugal.	U. S. A.	India.
0·91	3·30	2·30	1·70	5·60	2·05	1·75	2·90	8·90	1·0

That since 1895 the situation, however, has gone from bad to worse figures eloquently bear out :—

	1881	1891	1901	1911
Bengal	1·5	0·8	1·12	.....
Bombay	1·7	1·6	1·41	1·3
Madras	1·3	0·3	·68	·79
Assam	.....	0·5	·78	·85
Punjab	1·2	1·3	1·05	1·11
Oudh	·81	0·7	·73	·75
N. W. P.	.....	0·8		
Burmah	.....	1·5	1·08	1·09
Central P.	1·67	2·4	1·8	1·79
B. India	1·04	1·0	0·86	0·88

Now, what does this extraordinary phenomenon mean ? A large agricultural population with the lowest proportion of land in actual cultivation means that a large part of the agricultural population is superfluous and idle. How much idle labour there is on Indian farms it is not possible to know accurately. Sir James Caird who was the first to notice the existence of this idle labour estimated in 1884 that,

"A square mile of land in England cultivated highly gives employment to 50 persons, in the proportion of 25 men, young and old, and 25 women and boys. If four times that number, or 200, were allowed for each square mile of cultivated land in India, it would take up only one-third of the population."*

Out of the total population of 254 millions in 1881 nearly two-thirds were returned as agricultural. Allowing, as per estimate, one-third to be taken up, we can safely say that a population of equal magnitude was lying idle instead of performing any sort of productive labour. With the increasing ruralization of India and a continually decreasing proportion of land under cultivation, the volume of idle labour must have increased to an enormous extent.

The economic effects of this idle labour are twofold. Firstly, it adds to the tremendous amount of pressure that our agricultural population exerts on land. A quantitative statement will serve to bring home to our mind how high the pressure is :—

Mean density per square mile in 1911.

	Oudh and N. W. P.	Bengal.	Madras.	Punjab.	Bombay.	Assam.	Berar and C. P.	Coorg.	British Burma.
of Total Area ...	427	551	291	177	145	115	122	111	53
of Cultivated Area	829	1162	785	453	444	766	360	792	575

Such high pressure of population on land is probably unknown in any other part of the world. The effect of it is, of course, obvious.

Not-with-standing what others have said, this enormous pressure is the chief cause of the subdivision of land. It is the failure to grasp the working of this pressure on land that makes the law of inheritance

* India, the Land and the People, p. 225.

such a great grievance. To say that the law of inheritance causes subdivision of land is to give a false view by inverting the real situation. The mere existence of the law cannot be complained of as a grievance. The grievance consists in the fact that it is invoked. But why is it invoked even when it is injurious? Simply because it is profitable. There is nothing strange in this. When farming is the *only* occupation, to get a small piece of land is better than to have none. Thus the grievance lies in the circumstances which put a premium on these small pieces of land. The premium, is no doubt, due to the large population depending solely on agriculture to eke out its living. Naturally a population that has *little else to prefer to agriculture* will try to invoke every possible cause to get a piece of land however small. It is not therefore the law of inheritance that is the evil, but it is the high pressure on land which brings it into operation. People cultivate the small piece not because their standard of living is low as Prof. Jevons seems to think* but because it is the only profitable thing for them to do at present. If they had something more profitable to do they would never prefer the small piece. It is therefore easy to understand how the universal prevalence of the small farms or *petit culture* is due to this enormous pressure on land.

In spite of the vehement struggle that our agricultural population maintains in trying to engage itself productively as cultivators of a farm however small, it is true that judged by the standard of Sir James Caird a large portion of it is bound to remain idle. Idle labour and idle capital differ in a very important particular. Capital *exists*, but labour *lives*. That is to say capital when idle does not earn, but does not also

* Opt. cit. Introduction. The impression that Prof. Jevons leaves on his readers is that agriculture suffers in India because of the low standard of living. That a higher standard of life once established will necessitate a large holding because people with a high standard of life will prefer to migrate rather than accept a small holding. As his argument that holdings and standard of life are related is likely to mislead his less thoughtful readers, a word of comment is necessary. A standard of living is merely a level of consumption fixed in habit. But what determines the depth of a particular level of consumption? Undoubtedly the level of production. We may grant the truth of the statement that a rise in the standard of living works as a stimulus to higher production but it is foolish to expect mere wish to be father to the deed. It is *actual* production alone that can support a rise in the standard and not wish, generated though it be either by "travel or education". If Prof. Jevons means that an opportunity for increased production, leading to a higher standard of life, will disfavour small holdings we are one with him. But he can make himself more intelligible by dropping standard of living and only arguing for increased production; that increased production leads to a rise in standard will be granted by all; but the reverse cannot be maintained, as Prof. Jevons seems to do, for it may lead to production or predation. To speak of raising the standard of life without speaking of increased production is to give expression to a pious wish, if it does not lead to mischief.

consume much to keep itself. But labour, earning or not, consumes in order to live. Idle labour is, therefore, a calamity; for if it cannot live by production as it should, it will live by predation as it must. This idle labour has been the canker of India gnawing at its vitals. Instead of contributing to our national dividend it is eating up what little there is of it. Thus the depression of our national dividend is another important effect of this idle labour. The income of a society as of an individual proceeds (1) from the efforts made, and (2) from possessions used. It may be safely asserted that the aggregate income of any individual or society must be derived either from the proceeds of the current labour or from productive possession already acquired. All that society can have to-day it must acquire to-day or must take out of its past product. Judging by this criterion a large portion of our society makes very little current effort; nor does it have any very extensive possessions from which to derive its sustenance. No doubt then that our economic organization is conspicious by want of capital. Capital is but crystallized surplus; and surplus depends upon the proceeds of effort. But where there is no effort there is no earning, no surplus, and no capital.

We have thus shown how our bad social economy is responsible for the ills of our agriculture. We have also proved how our entire dependence on agriculture leads to small and scattered farms. How a large portion of our population which our agriculture cannot productively employ is obliged to remain idle has been made clear. We have also shown how the existence of this idle labour makes ours a country without capital. This being our analysis of the problem, it will be easy to see why the remedies for consolidation and enlargement under the existing social economy are bound to fail.

Those who look on small holdings as the fundamental evil naturally advocate their enlargement. This, however, is a faulty political economy —and as Thomas Arnold once said "a faulty political economy is the fruitful parent of crime". Apart from the fact that merely to enlarge the holding is not to make it economic, this project of artificial enlargement is fraught with many social ills. The future in the shape of an army of landless and dispossessed men that it is bound to give rise to is neither cheerful from the individual, nor agreeable from the national, point of view. But even if we enlarged the existing holdings and procured enough capital and capital goods to make them economic, we will not only be not advocating the proper remedy but will end in aggravating the evils by adding to our stock of idle labour; for capi-

talistic agriculture will not need as many hands as are now required by our present day methods of cultivation.

But if enlargement is not possible, can we not have consolidation? It can be shown that under the existing social economy even consolidation is not possible. The remedy for preventing sub-division and fragmentation of consolidated holdings cannot be expected to bring real relief. Instead it will only serve to be a legal eyewash. This becomes easy of comprehension if we realize at the start what the one man rule of succession means in actual practice. For this we shall have to note the changes it will introduce in the Survey Records. At present according to the Bombay Land Revenue Code Chapter I, Section 3, clause (6).

"Survey Number" means a portion of land of which the area and other particulars are separately entered, under an indicative number in the survey records of the village, town or city in which it is situated, and includes a recognized share of a survey number. Again by clause (7).

"Recognized share of a survey number" means a sub-division of a survey number separately assessed and registered.

After the adoption of the one man rule of succession a survey number will be made to cover a piece of land which will be of the size fixed for an ideal economic holding. Secondly, it will be necessary to refuse separate registration to any sub-division of such a survey number; *i. e.*, in order that a piece of land should be registered with a separate and a distinct survey number it must not be below the economic limit. Then too this survey number covering a piece of land large enough to be styled economic will be registered in the name of one person. This is precisely what will happen if we put into practice the p ject of the Baroda Committee. Mr. Keatinge instead of having one survey number covering a large and compact holding will have in the name of one person many survey numbers covering a unit of land composed of small and scattered fields. Abandoning Mr. Keatinge's scheme as serving no practical purpose *the one man rule of succession to a consolidated holding means in practice refusal to recognize legally a piece of land if it were below a certain size.* Now this refusal to recognize smaller pieces of land, it is claimed, will prevent the sub-division of a consolidated holding. Subdivision of land may be due to many causes the operation of which is rendered economic or uneconomic by the nature of the occasion which evokes it. Not to allow sub-division on any ground, as does Mr. Keatinge, is to cause

a serious depreciation of the value of land. But if sub-division is needed as when the stock has depleted, not to grant it is to create an uneconomic situation—a result just opposite of what is intended to be achieved. apart from this to prevent sub-division legally is not to prevent it actually, if necessitated by the weight of economic circumstances. Granting the pressure of population on land and the scanty agricultural equipment—evils to which the authors of consolidation and enlargement have paid no attention—we must look forward to the sub-division of holdings. If we legislate in the face of this inevitable tendency and refuse to record on our survey roll holdings below a certain limit required for a separate survey number we will not only fail to cure what we must know we cannot, atleast by this means, but will help to create a register that will be false to the true situation.

This being our criticism of the means for preventing sub-division and fragmentation it will not take us long to state our view as regards the project of consolidation. Consolidation and its conservation are so intimately connected that the one cannot be thought of without the other. Now if we cannot conserve a consolidated holding, is it worth our while to consolidate, however feasible the project may be? This work of Sysiphus will not fail to fall to our lot unless we make effective changes in our social economy.

As the evils of this surplus and idle labour which will be added on to by the consolidation and enlargement of holdings are likely to outweigh their advantages, the proposals do not find much favour at the hands of Prof. Gilbert Slater.*

As against Prof. Slater we hold that the evils are avoidable and it is because we are anxious to avoid them that we wish to advocate different remedies for bringing about the enlargement of holdings. Consequently we maintain that our efforts should be primarily directed towards this idle labour.‡

* "The Village in the Melting Pot."—Jonrnal of the Indian Economic Society. Vol. I, No. I. Page 10.

‡ Prof. Jevons does speak of removing the surplus agricultural population to towns. The author is happy to note that Prof. Jevons has recognized that there is the evil of surplus population. What he has failed to recognize is that this evil is the faithful parent of all other evils that affect our agriculture. When it is recalled that industrialization of India is the one theme against which Prof. Jevons never fails to argue with all the aid of his knowledge and influence, his remedy of removing the surplus population to towns sounds strange; for migration to towns is simply euphemism for the industrialization of India. On the other hand Prof. Jevons has forgotten that there are few towns in India. If we believe, as does Prof. Jevons, that there is the evil of surplus population the only logical and inevitable conclusion, however unpalatable it be, is the creation of more towns *i. e.*, industrialization.

If we succeed in sponging off this idle labour in non-agricultural channels of production we will at one stroke lessen the pressure and destroy the premium that at present weighs heavily on land in India. Besides, this labour when productively employed will cease to live by predation as it does to-day, and will not only earn its keep but will give us surplus; and more surplus is more capital. In short, strange though it may seem, *industrialization of India is the soundest remedy for the agricultural problems of India.* The cumulative effects of industrialization, namely, a lessening pressure and an increasing amount of capital and capital goods will forcibly create the economic necessity of enlarging the holding. Not only this, but industrialization by destroying the premium on land will give rise to few occasions for its sub-division and fragmentation. Industrialization is a natural and powerful remedy and is to be preferred to such ill-conceived projects as we have considered above. By legislation we will get a sham economic holding at the cost of many social ills. But by industrialization a large economic holding will force itself upon us as a pure gain.

Our remedy for the enlargment as for the consolidation of holdings as well as the preservation of consolidated holdings reduces itself to this: We prefer to cure agriculture by the reflex effects of industrialization. Lest this might be deemed visionary we proceed to give evidence in support of our view. How agriculture improves by the reflex effects of industrialization has been studied in the united States in the year 1883. We shall quote *in extenso* the summary given by the London Times.

"The statistician of the Agricutural Department of the United States has shown in a recent report that the value of farm lands decreases in exact proportion as the ratio of agriculture to other industries increases. That is, where all the labour is devoted to agriculture, the land is worth less than where only half of the people are farm labourers; and where only a quarter of them are so engaged the farms and their product are still more valuable. It is, in fact, proved by statistics that diversified industries are of the greatest value to a state, and that the presence of a manufactory near a farm increases the value of the farm and its crops. It is further established that, dividing the United States into four sections or classes, with reference to the ratio of agricultural workers to the whole population, and putting those states having less than 30 per cent of agriculture and of agricultural labourers in the first class, all having over 30 and less than 50 in the second, those between 50 and 70 in the third, and those having 70 or more in the fourth, the value of farms is in inverse ratio to the agricultural population, and that where as in the purely agricultural section, the fourth class, the value of farms per acre is only $ 5·28, in the next class it is $ 13·03, in the third $ 22·21, and in

manufacturing districts $ 40·91. This shows an enormous advantage for a mixed district. Yet not only is the land more valuable the production per acre is greater, and the wages paid to farm hands larger. Manufactures and varied industries thus not only benefit the maunfacturers, but are of equal benefit and advantage to the farmers as well."

This will show that ours is a proven remedy. It can be laid down without fear of challenge that industrialization will foster the enlargement of holdings and that it will be the most effective barrier against subdivision and fragmentation. Agreeing in this it may be observed that industrialization will not be a sufficient remedy for consolidation. That it will require *direct* remedies may be true. But it is also true that industrialization, though it may not bring about consolidation, will facilitate consolidation. It is an incontrovertible truth that so long as there is the premium on land, consolidation will not be easy, no matter on how equitable principles it is proposed to be carried out. Is it a small service if industrialization lessens the premium as it inevitably must? Certainly not. Consideration of another aspect of consolidation as well points to the same conclusion: That industrialization must precede consolidation. It should never be forgotten that unless we have constructed an effective barrier against the future subdivision and fragmentation of a consolidated holding it is idle to lay out plans for consolidation. Such a barrier can only be found in industrialization; for it alone can reduce the extreme pressure which, as we have shown, causes subdivision of land. Thus if small and scattered holdings are the ills from which our agriculture is suffering to cure it of them is undeniably to industrialize.

But just where does India stand as an industrial country?:—

	England & Wales.		Germany.		U. S. A.		France.		India.	
	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban	Rural.	Urban.
1790	...	...	...	...	87·5	...	...	...	...	...
1840	...	...	...	...	77·5	...	75·6	24·4	...	...
1851	49·92	50·08	...	...	...	...	...	...	...	...
1871	38·20	61·80	...	36	47·6	...	...	...	...	...
1881	32·1	67·9	...	41	44·3	29·5	...	...	...	...
1891	27·95	72·05	...	47	39·2	36·1	...	...	64·4	...
1901	23·00	77·00	...	54	35·7	40·5	...	...	67·5	...
1911	19·9	78·1	...	...	33·3	46·3	57·9	42·1	71·5	...

(The figures for the various countries do not correspond with the years. The range of variation is 3 years.)

Sir Robert Giffen after a survey of the economic tendencies of various countries concludes that :—

"The wants of men increasing with their resources the proportion of people engaged in agriculture and mining and analogous pursuits, in every country, is destined to decline, and that of people engaged in miscellaneous industry—in other words in manufactures using the latter phrase in a wide sense to increase." *

Figures for India, however, run counter to this dictum illustrating a universal tendency observed by an expert. While other countries like the U. S. A. starting as agricultural are progressively becoming industrial, India has been gradually undergoing the woeful process of de-urbanization and swelling the volume of her rural population beyonp all needs. The earlier we stem this ominous tide, the better. For notwithstanding what interested persons might say† no truer and more wholesome words of caution were ever uttered regarding our national economy than those by Sir Henry Cotton when he said **"There is danger of too much agriculture in India."**

BHIMRAO R. AMBEDKAR.

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* Essays in Finance" 2nd series p 240.

† Prof. Jevons in his paper on the "Capitalistic Development of Agriculture" read before the Indian Industrial Conference, held at Bombay in December 1915 argues against industrialization. It can however be maintained against Prof. Jevons that it is industrialization only that can make capitalistic agriculture possible. As a needful corrective to his paper *cf.* Sir Robert Giffen's Essay IV in his Essays in Finance, 1st Series.

A FEW OBSERVATIONS ON THE ECONOMICS OF EDUCATION.

It is stated that the masses in India are poor because they are ignorant and that they are ignorant because they are poor. This statement of the relation of poverty and ignorance may not command universal assent, but it will be generally admitted that no nation which aspires to make rapid progress can afford to neglect to take prompt and radical measures against these two evils. If the war has taught any one lesson more than another, it is this that an efficient and comprehensive system of national education is indispensable for the satisfactory development of a people. The deficiencies of England in this respect have been so strongly impressed upon the mind of the British Nation that schemes of reforms have been set on foot, and liberal funds been provided out of the national exchequer even during the terrible distractions of the war. In India, the lesson has not yet gone home. and though the subject has been discussed at length, corresponding action is lacking. That illiteracy, ignorance, want of training and equipment are insuperable stumbling blocks in the path of India's development in different spheres seems to be acknowledged on all hands. But somehow or other effective measures are delayed, the main plea urged in favour of a policy of 'hastening slowly' being paucity of funds at the disposal of Government.

If it is once admitted that education enhances efficiency and is calculated to augment the production of national wealth no stone ought to be left unturned to find the money to finance well-thought-out and comprehensive schemes of educational improvement. Any amount of money that may be devoted to the spread of education and the raising of the national standard of efficiency will be well laid out and will, in the long run, turn out to be a profitable investment. We believe that in spite of the heavy claims of the war upon the exchequer sufficient funds could have been found for educational expansion if the Finance Member had made up his mind to allot large amounts for the purpose and the Government had determined to tackle the educational problem so as not to waste precious time. The lack of trained teachers, the want of suitable buildings, the difficulty of finding employment for educated or trained young men, the unwillingness of the ignorant people to send their children to school are indeed pleaded against the rapid progress of education. But the people have now become too familiar with these difficulties

to be frightened by them. England, for instance, had to face such difficulties and has to face them even to-day. So many schemes have been tried there, and there is no reason why India should not do likewise. In a budget disposing of 150 crores of rupees a year, a couple of additional crores may certainly be found for the advancement of the programme of National Education.

The proportion of the total number of pupils under instruction in this Presidency excluding Native States to the population is not more than 4 per cent.; that of pupils in secondary schools to the male population not more than 6 per cent.; and that of children in primary schools to male population not more than 6 per cent. These figures speak for themselves and envisage a most deplorable state of things which should not be tolerated for a single day. As we have pointed out above, the funds necessary to finance schemes of progress may be found if Government go courageously to the task and are not deterred by difficulties, real or imaginary. The days are gone by when the traditional methods of wealth-production sufficed to supply the needs of the people and employment was easy to obtain. Young men of the high and middle classes were formerly easily absorbed in Government service and the learned professions; and the children of traders, artisans and craftsmen earned a comfortable living by following their ancestral callings. But this is no longer possible. State services and the professions are now overcrowded; and though there will still be room for teachers, engineers and physicians, the posts of clerks and other Government servants will no longer be many or attractive. The time, money and energy spent by young men, it is felt, in going through the educational mill is not likely to obtain any thing like an adequate reward and the waste involved will be enormous.

In these times of increasing population, of keen struggle for existence and of the rising cost of living, old methods of production will not do. Whether it is agriculture or manufacture, the product of each individual's labour must increase so that the total national dividend may be appreciably augmented. This means the adoption of improved methods, the application of more capital and, therefore, a better economic organization and industrial training. It is true that if the sons of handloom weavers and masons, for instance, attend a High School they will not become better weavers and masons for the schooling received. And in fact, the children of craftsmen, artisans and petty traders, who have had the benefit of English education, would under existing conditions rather aspire to become clerks and

officers than remain in the ancestral trades and try to improve them. Despite caste and communal restrictions, this process of social migration and promotion from one class to another is going on and is inevitable. The whole scheme of Indian economic and social life is being upset and must be steadily built anew. The courses of instruction for secondary schools must now be so framed as to suit these changing conditions. Whether they like it or no, the children of the advanced classes in the Hindu community must take more and more to industries and trade and each member of society must have an opportunity, under a suitable system of education, to make the best use of his physical and intellectual capacity. The state must likewise directly and actively promote industries and trade and adjust popular education to economic development. The policy of laissez faire has already done infinite harm and it must be discarded forthwith. The more the State spends on the progress of education, the larger will be the national dividend, and, therefore, the state's own share of it; and the two will act and react beneficially upon each other.

Under existing conditions one would think as if the course of instruction in secondary schools were designed to equip all pupils for a University career. It is complained that only about 12 per cent of the boys who enter the second standard of a secondary school graduate, and the rest drop out at different stages. Parents do not know what to do with their boys and the latter go automatically from one class to another till their progress is stopped by intellectual inability to advance or financial difficulty. There is here an amount of wastage which may be avoided. The elimination of 88 per cent of the boys from the educational course will likewise not be an evil if the education received by them were calculated to make them efficient citizens, in the walks of life they may choose or be driven to. About 30 per cent of the total number of pupils in secondary schools are Brahmins, though they form a very small part of the total population; and non-Brahmin Hindus who form the large bulk of the population are represented only by about 43 per cent., Muhammedan pupils being 8 per cent of the total. Heredity and tradition send the Brahmin boy to the school and the backward classes are only slowly coming to recognise the value of English Education. The latter feel, we are told, that education may unfit their boys for the ancestral callings and that they will be a drain upon the small family incomes. Among high class Hindus, parents make heavy sacrifices for defraying the expenses of their sons' education which are regarded as a good investment. We know parents who stint themselves in order that their children

may learn. Brahmin boys will not hesitate to work even at low jobs in order to earn money for their education. For ages Brahmins have been priests, teachers and clerks, but they enjoy the monopoly no longer and must adjust their lives to the changing conditions around them. Ignorance and poverty are the two main causes of the unsatisfactory character of the educational position of the backward classes. Unlike Brahmins, they have never been taught to regard education as necessary to success in life. But the old specialization of social and economic functions is being fast replaced by a new organization and they must be enabled to march with the times. When even primary education is not compulsory and free, the day must be distant when secondary education may be brought within the reach of poorer and backward classes. The cost of education has been steadily increasing; and the increase is due partly to high prices and the consequent higher salaries of teachers, and the larger outlay on school requirements, and partly to improvements which have been introduced for enhancing educational efficiency. The average annual cost of educating a pupil in a Government secondary school is about Rs. 60, in an aided school about Rs. 48, and in an unaided school, Rs. 39. About 29 per cent of the total cost of secondary education is borne by public funds, a major portion being contributed by fees. The average cost of maintaining an arts college has increased within recent years and is about Rs. 97,000, and that of educating a student Rs. 165 a year. In colleges where the number of students is large the cost is widely distributed and is small. In Government colleges the numbers are restricted and the cost per student is very heavy; whereas in private colleges which admit large numbers the cost is small. The cost per pupil is Rs. 383 at the Elphinstone College and Rs. 318 at the Deccan College. At the Wilson College it is Rs. 110 and at the Fergusson College it is as low as Rs. 87. The annual fee rates at the above Colleges are Rs. 120, Rs. 80, Rs. 102 and Rs. 60 respectively. Rich people can afford to pay the high rates of fees at the Government Colleges but they are absolutely beyond the means of the poorer and lower classes to whom college education must be an unattainable luxury.

We shall take Fergusson College as the type of an institution for higher education, which is mainly resorted to by pupils of the upper and lower middle classes. Out of the 527 students at the college in 1907-8, only 118 belonged to Poona, the rest coming from Deccan Districts and even from the northern and southern divisions. In 1914-15 out of 1,046 students, only 293 belonged to Poona, so

that the student population at the College may be taken as sufficiently representative of the above classes. We give below an analytical table showing the annual income of the parents and guardians of pupils of different economic status in the year 1907-08.

Annual Income of Parents and Guardians.

Rs.	No. of students.	
2,000 and above	78	
1,000 to 2,000	94	62 per cent.
500 to 1,000	154	
300 to 500		
100 to 300	98	38 per cent.
Below 100	103	
Total ...	527	

Corresponding figures for 1914-15 will be found below :—

Below Rs. 100	144	
From Rs. 100 to 300	339	65 per cent.
„ Rs. 300 to 500	197	
„ Rs. 500 to 1,000	153	15 per cent.
„ Rs. 1,000 to 2,000	119	
„ Rs. 2,000 to 3,000	85	
„ Rs. 3,000 to 6,000	6	20 per cent.
Above Rs. 6,000	3	
Total ...	1046	

Some allowance must be made for an under statement of incomes and for the fact that there are variations from year to year. It will, however, be agreed that an annual income of Rs. 300, and below, is hardly enough to allow a parent or a guardian to pay for the education of a boy at College. He will probably have a family of five persons to maintain and perhaps to spend for the education of another boy at school. It may be generally stated that on an average half the students at Fergusson College come from poor families which must feel the pinch of the expenses of higher education of one of the members. Lest the years we have chosen may be exceptional we have compared the above figures with those for other years and we find that the same conclusion is confirmed by them. Less than a third of the students are above the poverty line; about a fifth stand on the margin and the remaining are absolutely below the line and are extremely poor. Many of the boys of poor families are enabled to prosecute their studies at college by scholarships and free-studentships, the latter being awarded at

Fergusson College to the extent of 10 per cent. of the total number of students. Some of them get free boarding at students' messes and at the houses of charitable people and a few have to work for their living and education.

The number of students seeking admission to colleges has been steadily increasing and with the spread of education in the districts their numbers are bound to grow larger and larger. About 4,000 candidates appeared for the Matriculation in 1911–12 and the corresponding number this year was 5640. These figures point to the need of the starting of more colleges and the expansion of existing ones. During the last three years three new colleges have come into existence; but many more will be required in the near future. The cost of education, both secondary and higher, must also be reduced if the struggling middle and lower classes are to be afforded an opportunity to give education to their children. We have already shown above what is the average cost of educating a pupil in a secondary school. Cost of living having gone up during recent years, school expenditure has also increased; and managers of schools find it difficult to carry on their institutions efficiently without the means of increasing their revenue. Fee rates have been enhanced in all secondary schools; and though the consequent increase in their revenue has been welcomed by managers of schools it can not be concluded that a large number of parents have not felt the burden. We are told in the quinquennial report on education in this Presidency that " the doleful prognostications of the objectors to the change have been falsified, the number of boys seeking admission into secondary schools having not only decreased but substantially increased from 51,160 to 61,884 ". This increase in numbers, however, shows not that no hardship is caused but that the intensity of demand for education is very great. Education being as it were a necessary of life to many classes, the demand for it is inelastic. We may as well argue that the mass of people are not hard hit by the extraordinarily high prices of food stuffs at the present moment because the demand for them even at high prices has not decreased !

We have before us full statistics for the D. E. Society's New English School at Poona for the past 37 years, and they throw very interesting light upon this aspect of the question. The school was started with the avowed object and that object, has been steadily kept in view, of " cheapening and facilitating education ". The average cost per pupil in the school in 1880 was Rs. 15; and in 1882 only Rs. 12–12–0. In 1880–81 the corresponding cost in the local Government High School was Rs. 50–3–5. This cost in the New English

School has now doubled but the purchasing power of money has been reduced by one-half; and the corresponding cost of educating a boy has gone up in the local High School to Rs. 92-7-8 !. In his report for the year 1882 the Superintendent of the New English School pointed out that nearly 51 per cent of his boys were the sons of those who were either actual beggars or earned between Rs. 15 or 20 a month; nearly 28 per cent, the sons of those who might be called the struggling middle class, little better than the beggarly class; 18 per cent of those who may be called the well-to-do class and only 3 per cent of the rich. 'Poverty' and 'wealth' are relative terms and people whom we call rich in this country would be considered as poor elsewhere. And to say that increased rates of fees cause no hardship to parents is to betray an absence of close touch with the people and a lack of appreciation of their condition.

Fortunately there is a growing tendency for people of the well-to-do and rich classes to send their children to schools and colleges. But the general position of the middle class is not much changed. From 40 to 50 per cent of the parents of boys in the New English School are persons who earn from 8 to 50 rupees a month. If a parent of this class has one boy at school and another at College or two boys at school, one can imagine how hard pressed he must be to provide for their education. We give below some statistics :—

Income of Parents or Guardians.

Year 1900

	Rs.	No. of pupils.	
Below	100	25	
From	100 to 300	69	56 per cent.
,, ...	300 to 600	83	
,, ...	600 to 1,000	62	
,, ...	1,000 to 2,000	41	
,, ...	2,000 and above	40	
	Total ...	320	

Year 1910

	Rs.	No.	
Below	100	72	
From	100 to 300	203	48 per cent.
,, ...	300 to 600	331	
,, ...	300 to 1,000	251	
,, ...	1,000 to 2,000	222	
,, ...	2,000 and obove	189	
	Total ...	1268	

In 1915 the income of 756 out of 1464 parents was less than Rs. 500 a year, which gives a percentage of 52.

Economic pressure is a powerful factor in forcing the pace of reform in the social manners, customs and institutions of a people. Social reformers have long been urging the raising of the marriageable age of boys and girls. The spread of western education and ideas has facilitated this reform, but it is the economic force which is extraordinarily powerful. The growing severity of the struggle for existence is rendering early marriages of boys financially more and more difficult. There is indeed a strong tendency among boys and young men even to resist the pressure of parents in connection with marriage and the parents also realise the increasing difficulty of supporting additions to the family.

We shall take the statistics of the Poona New English School again and present them in a tabular form :—

Standnrd.	1885.		1895.	
	Average Age.	Per cent. Married.	Average Age.	Per cent. Married.
VII	17·9	77·9	18·62	49·42
VI	17·8	62·8	16·98	46·01
V	17·	54·5	15·25	30·10
IV	16·4	53·6	15·01	18·40
III	15·7	35·7	14·28	15·89
II	14·4	31·	13 98	10·71
I	14·4	27·8	13·82	17·86
	1905.		1915.	
VII	16·75	34·8	18·7	18·7
VI	16·33	17·5	17·45	7·1
V	15·75	13·9	15·74	7·4
IV	14·96	12·6	15·69	6·5
III	14·13	2·5	14·09	1·2
II	13·33	3·2	12·86	1·2
I	13·	3·1	11·84	3·2

From these figures it will be seen how the marriage age of boys has steadily gone down. In 1885 as many as 80 per cent. of the boys in the highest standard of the school were married, whereas the percentage in 1915 was only 18·7. Thirty-two years ago more than half the boys in the 5th and 4th standards were married and in 1915 the percentage was 7·4 and 6·5 respectively. Only one boy in a hundred is now married at the age of 14 whereas thirty-one were married out of every hundred in 1885. Marriage is proving an economic burden,—a luxury to be enjoyed only by the wealthy and backward people. Parents of small means cannot afford to get their boys married at an early age. The idea that it is a duty of parents to get their children married at an early age even at a sacrifice and that the marriage of boys is a part of the equipment for the battle of life and not an impediment and a source of embarrasment, is still there, but it is slowly weakening its hold on the public mind.

Statistics taken from the reports of the New English School at Satara tell a simlar tale. The large majority of the boys in this school, as is to be expected, belong to the higher classes of Hindu society. There appears to be a growing tendency among the well to do classes to send their sons to high schools and the percentages of parents and guardians of boys with an annual income of Rs. 300 or less were 69, 52 and 47 in 1907, 1911 and in 1916 respectively. The ratio of the sons of poor parents to the total number decreases as the latter number increases. And it is remarkable that 29 out of 226, 46 out of 254 and 62 out of 402 parents or guardians had, in these years, an income of Rs. 100 or less per year! As to marriage statistics, 9 per cent. in 1901, about 8 per cent. in 1911 and 4 percent in 1916 were married. The tendency to postpone marriages of boys to a later age is to be found even in a place like Satara and the above statistics would lead to the conclusion that economic pressure combined with the general progress in ideas is having its effect all round.

College statistics are equally interesting. Unfortunately we have no figures for earlier years as in the case of the school. But we may take it that married students formed an overwhelming majority at College, from 80 to 90 per cent. of the total number being married, a large number of them being the fathers of one or more children. Between the years 1905 and 1915 the percentage of married students

went down from 44·2 to 37·6. Tho following comparative statistics will prove instructive:—

Class.	1905.			1915.		
	Married.	Total.	Average Age.	Married	Total.	Average Age.
M. A.	4	9	23·11	18	37	22·93
B. Sc.	1	1	21·00	11	26	20·43
I. Sc.	...	3	19·66	10	40	18·32
S. B. A.	34	56	21·62	79	152	21·23
J. B. A.	32	55	21·80	127	271	20·17
I. E.	40	97	18·83	164	387	19·29
P. E.	97	249	18·24	133	527	18·13
(F. E.)	...	...	.....	...	...	.....
	208	470	.....	542	1,440	.....

While in 1905, 60 per cent. of the students in the senior B. A. Class were married, in 1915, 52 per cent. were married. Fathers of girls, however, have an eye on prospective sons-in-law when boys are in the B. A. Class, and students in the lower classes at college are only filling their terms for marriage. The percentage of married in the P. E. Class was 38 in 1905 and the corresponding percentage for 1915 was only 25. Thus about a fourth of boys entering upon their college career have already the responsibility of wives and perhaps of children thrust upon them. Most of these married students must, of course, be coming from well to do land-lord or sowkar families, though poverty is usually no bar to marriage.

Our inquiry into the economic aspect of secondary and higher education thus establishes the following propositions:—

(1) The demand for education is steadily growing and the provision therefor is inadequate. (2) The restrictions imposed upon admission to schools and colleges is a great hardship to many desirous of receiving education. (3) The cost of education in Government institutions is pretty high and is bound to prove prohibitive and burdensome to large numbers. (4) The struggle for existence is growing keener and the middle and lower classes must feel the pinch of the educational expenses of their children. When this is the condition of the middle class, the position of the backward communities the majority of whose members are poor must be most unhappy

and they must regard education as a luxury they cannot even dream of, though the wealthy among the socially backward classes have only this grievance that they are backward and have not been taught the value of education. Special facilities are being given by way of scholarships and free studentships to the pupils of these classes and they must try to come up to the level of the higher classes and castes. (6) The masses in India are extremely poor and measures must be adopted to place secondary and higher education within their reach.

(7) There was a time when the Government policy of leaving education, secondary and higher, to private effort, might have been attended with risk. But now several capable men and institutions may be found which will undertake to conduct schools and colleges if Government extends liberal financial assistance to them. Government now spends about 2 lakhs each year upon its three arts colleges in this Presidency and provides for the education of about 1300 hundred students. If the two lakhs were placed at the disposal of a body like the D. E. Society of Poona, and it received assistance from Government for buildings, it will be in a position to provide for the education of two to three thousand more students. The same remark applies to the management of high schools. The question of efficiency will, however, come in here; and it has already been the subject of a deal of controversy. We cannot enter into a discussion of that question in this place and shall merely content ourselves with the observation that there is a tendency in certain quarters to make a fetish of efficiency and to ignore the peculiar conditions prevalent in India where the land of the young mind is parching for want of the fertilizing waters of education. The need of the expansion of education is as great as, if not greater than, that of the attainment of efficiency. Efficiency is desirable and necessary; but it ought not to be allowed to come in the way of the satisfaction of a legitimate demand for education which is bound steadily to grow.

(8) The courses and methods of education will also have to be improved so as to meet the requirements of the people. (9) In the process of economic readjustment which is taking place in the country, there will be some hardship caused to certain classes. But as education increases the productive capacity of the people, there will be a steady augmentation of national wealth. And as regards opportunities and openings for educated and trained young men, the

direct assistance of the state to national industries and trade and the development of private enterprise will provide ample field for a wide variety of talent and equipment. (10) A conscious attempt must, however, be made in both directions at once, to equip young men for more efficient production of wealth and to provide facilities for the organization and conduct of industries by improved methods. Economic pressure is already bringing about important social changes and we may confidently expect that the readjustment will be steadily and smoothly achieved. (11) What is urgently required is that the State must have a definite aim and efforts must be vigorously and resolutely made to reach it. There will be no difficulty in finding funds if the State has sufficient faith. Drastic economy and retrenchment will yield a good deal and additional taxes may be imposed if necessary for the purpose.

V. G. KALE.

THE INCOME TAX ACT OF 1918 AND THE INDIAN MERCANTILE COMMUNITY.

As was pointed out in a previous issue* of this Journal, the new amending and consolidating Income Tax Act was passed on March 19th last in a rather hurried manner to meet the financial exigencies of war legislation, notwithstanding its objectionable features pointed out in the Legislative Council by the Hon'ble Messrs. Khaparde, Shukul, Ayyangar and Sarma. At that time the smaller merchants out of their ignorance seemed to be indifferent to its administrative amendments which made more stringent the machinery for the collection of the tax. But there has been great commotion these few months in the mercantile community in Bombay, Karachi, Ahmedabad and other large towns in the Bombay Presidency after the notices for the return of incomes in the forms sanctioned by the Bombay Government were sent to the assessees by the various Collectors. In 1916-17 Bombay City paid 72 per cent., Ahmedabad and District 4·6 per cent., and Karachi and District 5·3 per cent., of the income tax of the Bombay Presidency, while the total taxation on incomes in the same province comes within measurable distance of the net total under land revenue in 1917-18. The detailed figures for 1917-18 are not yet available to the public. The excess profits tax is intended to be levied from April next and the Government of India intend to publish a draft-bill well in advance for the consideration of the people, after a conference with some merchants and manufacturers to be held shortly at Simla. It is hoped that the income and super tax figures for 1917-18 will be made available to the public before the publication of the bill, in order that effective and practical suggestions could be made in place of a theoretic criticism offered from an analogy of similar legislation in other countries. The Statistical Department may be asked to publish the consolidated figures for India from all the provincial reports of the last year. Similar monthly returns for the receipts of these taxes during the current financial year may also be profitably called for and published by the Director of Statistics for India with the same end in view.

The Income Tax Act of 1918 is a piece of fiscal legislation which will require constant amendments for fiscal as well as administrative purposes as experience of its working becomes

* March 1918.

more and more available. As the Hon'ble Sir Hugh Bray said "Income-tax legislation is a complicated matter and one that few perhaps take very much interest in or take the trouble to study very carefully". From its very inception trouble was foretold. The members of the trading community except the wealthier ones at the top, who had to submit the returns at any rate under the Super Tax Act, manifested their dissatisfaction with the Act as soon as it was brought home to them. Apart from their unjustifiable attitude of making no returns under any circumstances for so long a period as the next five years, they have got some genuine grievances resulting from the way in which they have carried on their trade in the past. They are mostly so ignorant as not to easily understand the law and no attempt has been made in general to explain the same to them. Some keep very irregular accounts; while most do not take stock or draw up balance-sheets at the end of each year. As the Hon'ble Mr. Evans said at the time of the passing of the Act of 1886, "It is almost impossible to get the traders of an eastern country like India to make anything like a correct return of the fluctuating yearly profits of their trade. This arises from no viciousness of their nature for they are just and honest in their dealings with each other, but from the old fixed idea generated by centuries of oppression that self-preservation requires that they should conceal their profits from Government and all outsiders. As it is useless to call for returns from them or to assess on the basis of such returns if sent in, the Collector must assess at his discretion; and to obtain the necessary information the Collector must employ agency untrustworthy and corrupt. This will result in much bribery and much extortion and oppression". Since 1886 the people in towns have got accustomed to income taxtation; but the above remarks have not still become wholly inapplicable. Moreover the innovation of totalling up incomes from all sources to arrive at a higher rate in place of the method of assessing in different parts under the old Act or by different schedules as under the English Acts, has opened up the possibility of completely exposing the monetary credit of an assessee. No provision has been made for making allowance for the losses in the years immediately preceding an assessment, or for striking an average out of the incomes of two or three years. The Hindu joint family is liable to be broken up to avoid the totalling up of incomes of individual members. The daily recurring penalty for individuals and the punishment of imprisonment for various offences under the Act are too stringent

not to raise a protest. The Income-tax Collector is given the widest latitude to call for information, while he is not controlled by any honorary assessors. The prosecutions require no sanction from any authority superior to the Collector. No provision is made for abatements for the smallness of incomes or for dependents maintained by an assessee with an income below Rs. 5,000. The form of declaration that has to be made beneath the returns of income is too positive and makes no allowance for the erroneous knowledge or belief of an assessee as under the old Act.

The merchants in the large towns of the Bombay Presidency have agitated over the matter and have accepted the lead of the Bombay merchants for concerted action to memorialise His Excellency the Viceroy. They have, however, taken too long a time for the purpose and missed the opportunity of getting something done by way of amending the Act while the Indian Legislative Council was in session almost for the whole of the month of September. Out of their ignorance they also did nothing while the Act was being passed though the draft-bill had been published in advance. In their later agitation they were not able to secure any material support either from the educated classes or from the wealthier merchants because they did not want to send returns for a good many years. The exigencies of war legislation including that of the excess profits tax rendered it incumbent to call up definite returns of trade incomes. But the ignorant merchants might well have been given a year's notice under wider publicity to enable them to keep accounts more accurately. The amended Act was in contemplation in February, 1917, and could have been notified and passed earlier than March, 1918. As it is, there will be a good many *bona fide* errors in returns and the administrative officials will have to exercise a deal of patience and condone errors; while they themselves will be put to great labour in the first year or two. The merchants' memorial is under consideration by His Excellency the Viceroy and some grievances may be remedied by the provincial Government by amending the rules and forms.

Under the foregoing circumstances it would not be out of place to suggest a few amendments based on the lines of the English Income-tax law. (1) Incomes from dividends of company shares are taxed at the source and therefore levied from the companies directly. The income-tax in India operates chiefly in large cities and towns and therefore the tax on house-rent income could be collected by the

municipality who has to maintain an assessment roll of its own. Only returns of all other incomes except the last two should be called for from the assessees. This will serve the exigencies of war taxes including the excess profits tax while mercantile credit in large cities will not run the risk of complete exposure in all cases. There will be a little less revenue than under the existing arrangement but the same amount could be raised by higher rates or a different gradation and differentiation. For the current year, however, no change of rate is necessary as the budget estimate of receipts from income taxes (£ 6,333,200) is almost the same as the revised estimate of the last year (£ 6,076,800). In the Council discussion on the first reading of the Act even the Finance member admitted that "the Government will get more money in certain ways" on account of the amendments though there was no direct fresh taxation under the Act. So that if all the suggestions made herein be at once adopted and brought into operation from the commencement of the current financial year, it seems there would be no deficit in the budgetted receipts from income taxes. (2) Trading joint Hindu families only should be treated as firms. Individual members of non-trading joint families but earning independent incomes should be assessed separately. (3) Incomes below Rs. 5,000 should be allowed an abatement of Rs. 200 for each dependent on the assessed as also a graded abatement for smallness as under:—

Incomes From	to	Abatement
Rs. 1,000	Rs. 3,000	Rs. 1,000
„ 3,000	„ 4,000	„ 800
„ 4,000	„ 5,000	„ 500

In England incomes below £ 700 are allowed an abatement of £ 25 per child and a graded abatement between £ 70 and £ 130. Such small incomes should be allowed a further 15% abatement in large towns with a population of over 100,000 souls and 25% abatement in seats of provincial Governments for the higher cost of living there.* (4) The net loss incurred in the two preceding years should be allowed before arriving at the assessable income. (5) Returns should be compulsorily called for from those assessees only who have probable incomes of Rs. 5,000 or more. Notices should be sent by registered and not ordinary post. Incomes below Rs. 5,000 will be

* In the case of employees house-rent allowances and the annual rental value of a house occupied free of rent are exempt but the rule does not apply to owners occupying their own houses.

assessable summarily as in the case of incomes below Rs. 2,000. No discretion should be left to the Collector to call up returns of incomes that are according to his information below Rs. 5,000. Even incomes between 1,000 Rs. and 2,000 Rs. were made assessable summarily in the present Act, when a United Provinces member, the Hon. Sir J. Campbell, pointed out in the Select Committee that in his province such incomes were half the number of the total assessable incomes. (6) Only persons claiming abatements or a refund of tax paid under any one part or schedule should be compelled to make a return and give particulars of all their income. (7) The daily penalty should be abolished except in the case of officers of corporations only. Failure to make a return or submitting a false return in all other cases should be visited with a fine of Rs. 200 and tax upto double the duty. Imprisonment for false returns should be abolished. The proceedings for contempt of court will be sufficient to enable the Collector to get returns or particulars thereof while perjury before the Income Tax Collector punishable as such will act as a sufficient deterrent against false returns. (8) Super-tax returns must be made of their own accord by assessees within a prescribed period on pain of a fine of Rs. 500 and tax upto double the duty in addition to the daily fine on officers of corporations only. (9) The Form of the declaration under the Act must provide for correctness to the knowledge and belief of the declarant.

The above changes will ensure satisfaction without detracting from the efficiency of the administration of the tax. Moreover to bring about a greater and a far more satisfactory harmony between the tax-payer and the taxing officials some publicity work may be carried on as suggested in the following account † of the administration of the Massachusetts Income Tax Act of 1916 A. D. :—

"The Massachusetts Income-tax went into operation in the year 1917 and its results are now a matter of record. As explained in a previous number of this journal, the administration of the tax was placed in the hands of the tax Commissioner who was authorized to appoint an Income-tax deputy and to divide the State into assessment districts. The deputy was appointed in the summer of 1916 and by the end of the year an efficient administration staff had been created, the State being divided into ten assessment districts. During the last months of the year a campaign of publicity was inaugurated with

† From the Quarterly Journal of Economics of the Harward University, May, 1918. Vol. XXXII No. 3.

a view to acquainting the people of the commonwealth with the requirements of the new law. Literature was extensively circulated and a corps of speakers organized who responded to many calls from various cities and towns. Banks and other similar institutions aided greatly in the campaign by circulating literature and establishing information bureaus for the use of their customers. Finally the Income-tax department sent representatives to every city and town at stated times to meet taxpayers and assist them in complying with the requirements of the law.

"The result was a very general compliance with the requirement of returns of taxable income. No less than 183,400 returns were received which meant that the tax was enforced strictly upon the basis of sworn returns by taxpayers and not by official estimates. As was natural in the first year, many of the returns were defective and the Income-tax department was put to a great deal of labour that will probably not be required in the future. In general it was evident that the people were attempting to comply with the law and that co-operation between the taxing authorities and the taxpayers had been secured to a very large extent. Up to January, 1918, about 9,000 delinquents were rounded up by the department and it was then estimated that further search might disclose some 10,000 other cases. These figures seem large, but when compared with the total number of returns received, they indicate that the law was as fully complied with as could have been expected of any similar act in the first year of its operation. There were of course may errors resulting from no dishonest intent and caused in most cases by uncertainty as to the taxable status of stock-dividends, shares of voluntary associations and some other items. There were also about 4,000 cases where questions of domicile were raised, but in most of these it was determined that the persons concerned were inhabitants of the commonwealth. Up to January 1st, 1918, supplementary investigations made by the department brought in 30,000 dollars of taxes while the total was about 12 million dollars.....The cost of administering the new act was about 300,000 dollars of which 40,000 dollars had been expended for office equipment and publicity work incidental to the establishment of the new system."

MANEKLAL H. VAKIL.

TAXES VERSUS LOANS.

Apart from the theories and philosophic speculations as to the rights of Governments in respect of appropriating to the property of their subjects, it is now recognised on all hands that the organisation or entity which we call the state can not exist in an efficient condition without an adequate command of constant revenue. The power to compel contributions from, or, as it is termed, " to tax", the public is inherent in and an incident of sovereignty and rests upon necessity. Obviously, therefore, the question of revenue is a question of first importance even in ordinary times. Times like the present when cataclismic events are shaking the world to its foundations, give it a supreme importance. War has to be waged and won and colossal sums of money have to be spent. England alone has spent over 1,08,23 crores of rupees from August 1, 1914 to May 4, 1918. The question is how to get this money without causing hardship to the poorer and the middle classes.

The two main sources of war finance are taxes and internal loans. The third source, viz., overt manipulation of the currency is so much out of court that it is not entitled even to a mention. Unlike mercy finance by inflation " curses both the inflator and the inflatee ". Of the two, taxes and loans, the latter is preferred by practical financiers as it keeps the public in good temper and deludes them that they have escaped being taxed. Taxes are after all a burden or " confiscation " as Joseph Hume said. While subscribing to a loan is nothing but lending. An average citizen judges of Governmental transactions by his own experince. If he lends to another citizen he makes business and earns interest. Similarly, if he loans to Government he is under the delusion that he makes business and a patriotic one, but he forgets that in lending to Government he is partly lending to himself and incurring a liability. In paying interest to himself he has to make his own contribution. Whenever Governments issue loans they make provision for interest and sinking fund charges by imposing additional taxation. A similar provision was made when the Government of India started a loan for making a contribution of £ 100 million to His Majesty's Government. This is what Sir William Meyer has said in his last Budget Speech :— " As regards outlay in connection with our war contribution of £ 100 million to His Majesty's Government, we set aside £ 6 million for recurring charges in respect of this amount including, (*a*) interest

on money raised by loan in India and made over to his Majesty's Government, (*b*) interest on the balance to be taken over in the shape of Home War debt and (*c*) sinking fund provision". So it is a delusion to suppose that the public can escape being taxed by the method of financing by loans.

There is another consideration which deludes the public into the belief that by the borrowing system it can transfer the burden of finding money for meeting the war cost to posterity. What war requires is goods and services. They must be available when the war is actually being waged and they must be produced before they are used. Therefore the cost of producing the goods and the services must be borne by the generation which exists at the time the war is being waged. What the present generation can do is to affect the ability of posterity to produce by diminishing capital investment or allowing industrial and agricultural organisation to deteriorate. War affects posterity in so many ways. But this does not mean that the fiscal method of borrowing can always hand on to posterity the burden of war cost.

The most important question is not the distribution of the burden of war cost between the present and the future but between the different grades of wealth. The first of the famous four maxims of Adam Smith is a guiding light in this connection. It enunciates that "the subjects of every state ought to contribute towards the support of the Government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state". It is applicable to the tax system as a whole and in spite of hostile criticism still maintains its ground. Rightly understood it would be supposed to have anticipated the principles of graduation and differentiation which are slowly being recongnised in modern fiscal systems. The fault did not lie with the enunciation of principles. It lay with the control of administrative machinery. As long as public opinion could not exercise influence over Government, principles of graduation and differentiation were unable to find their way into tax-systems. Bastable says that "the shifting in the centre of political gravity that the growth of democracy has brought about has, as one of its consequences, a tendency to alter the distribution of taxation in favour of the most powerful class *i. e.* the numerical majority. This can only be accomplished by putting a heavier burden on the wealthy."

This is an ideal which is not attained in practice. If it were rigidly enforced all taxes will have to be chopped off from a few rich people. Such a system would put a discount on the accumulation of capital and might hamper progress. But in war times the ideal is not impossible of attainment and what we have got to see is which of the two fiscal methods, taxes or loans, makes the nearest approach to the above ideal. If money is raised by loans then the charges of interest and sinking fund will have to be found in the way in which the ordinary charges of administration are found. That means the burden of huge war expenses will fall proportionately on the rich as well as the poor and will therefore affect the poor more than the rich. The proportionate distribution of the burden of revenue which is proper in respect of ordinary charges is not proper as regards tremendous war expenses. So these can be met more equitably by the levy of direct taxes than by that of loans. Besides borrowing from banks, which is bound to occur whenever these large loans are floated, is likely give rise to inflation of currency which means reduction of the value of money in commodities; and one need not wait to prove as it is being realized every day, how it will hit the poor more severely than the rich.

Let us see how taxes and loans have moved in India since the War. In the first budget after the war, that is the budget of 1915-16, the Government of India did not impose additional taxation even though a large deficit was then anticipated. They found their requirements by temporary and exceptional measures leading to borrowings to the extent of about £ 25 million. In 1916-17 they saw that they could not get on with uncovered deficits and so they had recourse to additional taxation. In all they provided for a revenue of a little over £ 3·6 million by (*a*) enhanced customs duties and consequential changes in the excise duties on liquors yielding £ 2,150,000, (*b*) raising duty on sailt yielding £ 600,000, and (*c*) an increase under Income Tax yielding £ 900,000. The actual yield from these sources was as the Revised Estimates show a little over £ 5·6 million. In January 1917 the Government of India offered and His Majesty's Government accepted a contribution of £ 100 million to the War. This sum was raised by loans and in order to meet the consequent recurring liability of interest and sinking fund they imposed additional taxation which did not cover the whole of this liability as it was partly met by increased yield from previous taxation. The new sources were (1) Supertax yielding £ 1,350,000 (2) doubling

of export tax on Jute yielding £ 500,000 (3) raising import duty on cotton goods from 3½ per cent to 7½ per cent bringing in about £ 1 million and (4) a surcharge on railway goods traffic, estimated to yield about £ ½ million. The revised estimates showd that these new taxes yielded a sum to the tune of £ 3·5 million. This year there has been no additional taxation. So if the two above mentioned taxation proposals are taken into account the increased burden thrown on the country would come to about £ 9 million. But if we consider the revenue and expenditure figures it would look to be much more. The total revenue for 1914–15 was £ 81,157,666 while the budget for 1918–19 takes the same figure to £ 108,346,900. That means there is a jump of over £ 27 million in four years. If we exclude from this the income-tax and super-tax which together would aggregate to about £ 3 million the bulk of the revenue will affect the poor more severely than the rich. I am unable to see why Government should have dropped the excess-profits tax. Sir William Meyer says that it is difficult to fix what are normal profits and what are excess gains. In England it was possible to levy the tax with a fair amount of equity because of the presence of a very efficient and elaborate income-tax machinery there which is lacking in India. Besides, he says, excess-profits tax would be a temporary measure while the Government of India wanted a permanent source of revenue, and therefore they have rejected the excess profits proposal and adopted instead the super-tax. The super-tax would no doubt affect large incomes but would not affect them to the extent to which excess profits tax would have done. The highest rate of the super-tax is 25 per cent of the income while an excess profits tax can go up to 80 per cent in the extreme case. Besides the super-tax will attack the individual's combined income from all sources while excess profits taxation will affect just the appropriate profits arising from war conditions.

So far as the £ 100 million loan is concerned there was no go out of it as the sum was to be made over straight off and it could not be collected by additional taxation. It is our opinion that it will hit the poor more than the rich. Furthermore Government could have dropped salt-tax and surcharge on Railway goods traffic and instead substituted excess profits which would have distributed the burden more equitably than at present.

It is a well recognised principle that the financial necessities of a Government normal or abnormal, whether required for the develop-

ment of internal resources or for maintaining the territorial integrity of the state, should not be met by raising a loan so long as it is possible to meet them by the expansion or recasting the system of taxation. There is of course a limit to this method of manipulating the taxation resources, as there is a limit to everything else; but it may well be asked if the Government of India had reached the limits of taxation, when it resorted to the method of raising loans, which more specially in a country like India will always involve a sacrifice of wealth that would otherwise foster industrial growth. The wealthier classes, under the tax system in India, have largely been left alone; excess profits due to war conditions have only recently attracted Government attention, long after the method of raising money by loans was thought of and utilized; and so long as there exist such sources of revenue as taxes on luxuries and excess profits, it is a hollow cry that the extreme limits of taxation have been reached in India. It can only be a matter of regret that the Government of India should have resorted to loans when the system of taxation afforded opportunities for meeting the increasing requirements of Government by a wise manipulation and re-adjustment.

C. S. DEOLE.

NOTES ON CURRENT TOPICS.

The Economic Situation.

It is not using the language of exaggeration to say that the economic condition in India at the present moment is extremely serious. The scarcity of certain articles and the high prices of almost all necessaries of life were becoming a normal feature of the abnormal times of war, when the failure of monsoon over a large part of the country made the outlook still more gloomy and established conditions hardly to be distinguished from those peculiar to a wide-spread famine. A failure or shortage of rain is always a calamity in India as it means unemployment, underfeeding of human beings and cattle, restriction of trade and loss of Government revenue, and its evils assume a formidable aspect when it spreads over a wide area. Things were bad enough with the deficiency of the supplies of the necessaries of life already and now they have been rendered worse by a failure of the monsoon which is threatened over an extensive area of the country. As if the hardships of the people on this account were not enough, a terrible wave of a dangerous type of influenza is passing over the country, and the fatal epidemic seems to be bent upon not leaving any part of the country unvisited. The pestilence is extremely virulent and has taken and is taking its toll of victims in their hundreds and thousands. The successive defeats which the Allies have inflicted upon the enemy in the different theatres of the war and the consequent hope of an early cessation of hostilities, are cheerful factors in the gloomy situation, but they are not calculated to improve the economic position in India in the immediate future.

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Control of Cloth.

The high prices which have now prevailed all over the country for a long time were borne by the mass of people without much complaint as an inevitable incident of a colossal war and as the inscrutable ordering of Providence, in the charactaristically Indian way. But the evil became intolerable. The poorer classes could not procure the cloth and the food grains, the fuel and the oil which make up the simple living of the bulk of the Indian population. There were disturbances and looting of bazars in certain parts of the country, and the problem of high prices had to be immediately faced. The Government of India took up the question of cloth and as a result of inquiries and anxious deliberation, the

control of cloth Act was passed in the supreme Legislative Council. This was a very thorny question, involving as it did, the conflicting interests of different classes and the regulation of the complex machinery of cotton trade and manufacture. The interests of the large class of poor consumers were, however, paramount and the Government of India decided to control the production of cloth in Indian mills. There can be no doubt that the scarcity and high prices of all kinds of cloth were largely caused by the speculation of dealers and this fact was proved by a considerable fall which took place in cotton prices immediately the legislative measure providing for control was passed. An inquiry ordered by Government likewise revealed the existence of large stocks in the ports and in the bazars. This discovery, combined with the sudden collapse of prices, led some people to cry out that the recent Act was superfluous and that the cloth controller must stay his hands. We do not think that Government will be influenced by this move into relaxing its efforts to supply standard cloth to the poorer classes. Ingenious arguments are being used in the press against Government control designed to show it to be futile, unnecessary and mischievous, and schemes of relief on the lines of famine relief, are proposed. Though the control of cloth under the new Act, may not succeed in bringing down prices to a markedly low level, we feel assured that it will exercise a wholesome and moderating influence upon the course of speculation and the withholding of stocks.

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The Co-operation of Manufacturers.

Control of the ordinary course of manufacture and trade is rightly deprecated in normal times and the evils of state interference and regulation are patent enough. But in these critical times of war, we live in abnormal conditions and control of various kinds and in various degrees has to be exercised in the larger interests of the country. The question of cloth scarcity comes under this category and we have described the circumstances in which the Government of India had to take the production and distribution of standard cloth under its control. It must be said to the credit of the mill-owners, who have been making hay in the sunshine of war conditions, that they are cheerfully co-operating with Government in the difficult task with which they are confronted. Why do you not control the prices of raw cotton which have soared so high and on which the prices of cloth largely depend, is the question which manufacturers have been asking

Government. We would not hesitate to recommend the control of cotton speculation and even that of cotton exports, if this measure is regarded as necessary in the best interests of the country and we feel certain that Government would not hesitate either. But before this is done, the fact must be established that exports of raw cotton prevent the mill-owners from securing reasonable profits. In any case, speculation in cotton and in cloth must be checked if prices are to be kept at a sufficiently low level. The normal forces of demand and supply cannot be left to work out a solution when there are admitted impediments in the path of their operation.

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Control of Food Stuffs.

The present problem of high prices is as much a question of distribution as of production. The fall in the imports, due to a lack of tonnage and other causes, has reduced supplies and enhanced values. But the stocks which are actually available are not properly distributed for want of transport facilities. The Cloth Controller will have, therefore, to arrange for an adequate supply to meet the demand of the different provinces and the provincial controllers have been called upon to give the necessary indents in time. The prevalent scarcity of food grains is the resultant of two forces, inadequate production and unsatisfactory distribution. Crops have failed over a large part of this Presidency and anxiety is felt about their condition even in northern India. The staple food grains of the Bombay Presidency are selling at prices which were not reached even in famine times in the past and the Governments of Bombay and Madras have already taken steps to import rice from Burma. The Governments of the different provinces and the Native States would naturally like to keep their food grains for their own people and to put an embargo upon exports outside their limits. But such a procedure cannot obviously be allowed or the provinces may be driven to make reprisals against one another. The Government of India is the proper authority to take a comprehensive and national view of such matters, and we are pleased to find that they have lost no time in assuming the control of food grains and in appointing a special commissioner to exercise it. The first step taken by them is in the direction of the discontinuance of further purchases of wheat for export over seas other than what is absolutely necessary on military and Government account and supplies to Mesopotemia and they are contemplating even a reduction of these commitments. It would have been

anomalous if exports had continued while supplies available in India were short.

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The need for proper distribution.

Government control will not be confined to exports of wheat but will be extended to all other kinds of food grains. The scope for an increase in production is so small that it need not be taken into account. At the last session of the Bombay Legislative Council, reference was made to the possibility of stimulating the production of food grains with the assistance of well and canal water, and it is to be hoped that the Agricultural department will do its utmost to get the cultivator to do the needful in the matter and that the Irrigation department will give the necessary facilities. But reliance will have to be placed upon effective methods of transportation and distribution. Our experience of famines has its lessons to teach in this connection and food grains will have to be taken to provinces and districts where the stocks are inadequate from parts of the country where there are surpluses. This will be a process of equalization, designed to draw upon provinces which have something to spare in order to supply the want of provinces suffering from a shortage of stocks and the failure of adequate production. The provinces of India will thus be broadly divided into surplus and deficit provinces and the Food grains Commissioner will decide in consultation with local Governments what quantities may be transferred from the one to the others and at what prices the food grains may be purchased. The operations of purchase and transport will be carried out through the agency of selected commercial firms under the authority of the commissioner. The next necessary step is to arrange for the sale of grain transported to deficits provinces through licensed dealers at prices fixed at a reasonable level. Arrangements may be made by Governments or Municipalities and other bodies to sell these food stuffs. Cheap grain shops of this type have already been started in several towns and they have proved a boon to the poorer classes.

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Lack of transport facility

Control exercised in this way by Government is bound to disturb the normal machinery of distribution. The greatest difficulty experienced by merchants has been the lack of facilities of transport. There are sufficient quantities of food stuffs in the country taken as a whole, but railway

wagons have not been available to carry them from one part of it to another. The food stuffs Commissioner will now see to it that the necessary railway facilities are given so that the work of distribution may be easily carried out. The whole problem of high prices is thus at bottom a problem of distribution and, therefore of transportation by the railways. Military needs will of course, continue to have a predominant voice and must be attended to first. But next to them preference will have to be given to the transportation of food-stuffs and cloth. Dealers who perform these services for the public in ordinary times will have to put up with the disturbance that may be caused in their usual business and they must adjust their operations of trade to the machinery of distribution set up by Government. It must be borne in mind that we are only at the beginning of the trouble of scarcity. The situation may be slightly improved, let us hope, by more favourable monsoon conditions in the immediate future, but the greatest pressure will be felt as the year advances, and substantial relief can be obtained only when we have a satisfactory season next year. If hostilities cease shortly the problem may be simplified to a certain extent, but so far as scarcity in India is concerned, no sanguine hopes ought to be built upon the foundations of the prospect of an early peace.

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Fiscal autonomy.

One of the most essential reforms emphatically demanded by our merchants, manufacturers and politicians is the concession of fiscal autonomy to India. It is eminently satisfactory to note that the committee of non-official members of the Viceroy's Council, appointed to examine and report upon the reform Scheme formulated by Mr. Montague and Lord Chelmsford, has endorsed this demand in express terms. It not only wants that the Government of India should have power to regulate the tariff of this country, but insists upon this power being exercised by the Government under the control of the Indian Legislature. We hope the significance of this demand is clearly appreciated by all those who have been discussing the attitude of the Indian people towards the reforms. Most of the supporters of Mr. Montague in England have blessed his scheme under the undoubted impression that the Government of India is to remain wholly responsible to Parliament and that at any rate the authority of that Government is to continue undisputed in all essential matters.

But here in India, even those leaders who feel it their duty to welcome the scheme, propose the transfer of a large slice of the power of the Central Government to the hands of the people! It may be doubted if this considered support of his Indian friends will not embarrass Mr. Montague as much as the opposition of politicians who have declared that the scheme, as it is, is unsatisfactory. In any case, fiscal autonomy for India is a claim which is being universally made in the country and no reform scheme is likely to prove acceptable to the people which does not concede it.

VIEWS AND MEMORANDA.

INDIA'S WAR CONTRIBUTION.

The situation in which the non-official members of the Supreme Legislative Council found themselves placed when the Hon'ble Sir William Meyer threw upon them the responsibility of accepting or rejecting his resolution with respect to the additional financial burden for the new Indian army assumed by India, was extremely embarrassing and they deserve the sympathy of the country in the difficult part they had to play in the debate on the subject. Though the Finance Member tried to show that a resolution of the nature he moved should have been anticipated, we feel it must have come as a surprise upon most members of the Council as it certainly did upon the people outside. It was undoubtedly thought—it was a vague impression—that the country would be called upon to shoulder an additional military burden and that fresh taxation in one shape or another was coming. But few naturally had any idea of the extent of the increased financial responsibility which would be thrown upon the country and Government would have done well not to have departed from the practise usually followed in such matters. The executive government evolved a plan of the financial assistance that was to be rendered by India in respect of the cost of the militay forces raised or to be raised in India and put a cut and dry scheme before the Council, to be approved or disapproved by the non-official portion of the assembly. Sir William Meyer explained why this extraordinary procedure was adopted; and this may be said in its favour that if an offer of additional assistance was to be made on behalf of India, it would most appropriately go from the non-official members. There would be the grace of spontaneity and sincerity in the offer, which were calculated to produce a very favourable effect upon the British mind. Though the resolution was accepted by a large majority of non-official members, officials having deliberately abstained from voting, the debate as a whole did not, unfortunately, leave a very happy impression behind it. It was an important question and the Council had not sufficient time to think over it or discuss it satisfactorily. Even the suggestion made by Pandit Madan Mohan Malaviya that in view of the fact that the resolution practically amounted to a money bill, the ordinary rules of business should be suspended and sufficient time should be allowed to members freely

to discuss the subject, was not accepted. The principal object the Government had in view in following the unusual procedure they did, was thus frustrated. All honour to those members who spoke out their minds freely when placed in an awkward position and explained what they and the country generally thought about the whole curious affair! They proved a small minority, the majority of the members having joined in a chorus of enthusiastic approbation.

So much about the procedure. Now with respect to the substance of the resolution and the debate that followed the Finance Member's speech. In consultation with the Secretary of State the Government of India had formulated a scheme for meeting the cost of the additional army of five lakhs that was in the process of formation, and it was in effect a formal matter that the assent of the legislature should be obtained. Armed with information about military needs and financial conditions, which Government alone could possess, the executive had decided that the situation justified India in taking up a larger share of the cost of the war and that the best way of doing this was for her to bear the normal charges of a progressively increasing number of troops, 200,000 additional men as from 1st April 1918 and 100,000 more as from 1st April 1919, making a total of 460,000 men, including the regular Indian army of 160,000. The additional charges were calculated at £ 12·7 million for the current year, £ 14·7 million for 1919–20 and allowing for the results of gradual demobilisation, £ 7·7 million for 1920–21, and together with £ 10 million further liabilities in respect of additional pension charges, a total of £ 45 millions in three years. This scheme was subject to modification, entailing a larger or smaller burden as the anticipated period of war was prolonged or curtailed, and would have to be reconsidered in certain contingencies, such as the invasion of the Indian frontiers by the enemy, in which case a heavier burden of military expenditure would have to be borne. The Finance Member stated that the additional charge falling upon the current year could be met from the existing revenues, and provision would be made in next year's budget for an excess profits tax, so that care would be taken that the extra burden would not press upon the poor but would have to be principally shouldered by merchants and manufacturers who were profiting from the peculiar conditions created by the war.

The proposal was based mainly on two ideas, First, that in view of the changed situation created in central Asia by enemy activities in

that quarter and the consequent menace to India's frontiers, it was imperative that we should make a larger contribution to the prosecution of the war not only by providing more men but also by bearing a larger share of financial responsibility. Secondly, that India could assist the Empire in this way without the mass of her population being required to suffer on account of the sacrifice. The financial conditions were more favourable than they had been in the early stages of the war, and additional sacrifice could be conveniently made without the mass of the people being adversely affected by the war profits tax that would be imposed next year in order to secure the necessary extra revenue. The Finance Member and the other official speakers who supported the resolution with enthusiasm referred to India's duty to the Empire in this crisis, the imperial patriotism of the people of the country and to the necessity of their making sacrifices when they were asking for political rights. There was nothing novel or impressive in these arguments, and the speakers were really preaching to the convinced or the converted. But the crucial question was, was the financial sacrifice, to the extent of £ 45 millions on the part of India, imperatively necessary and was the country in a position to bear the burden? The executive Government answered both the questions in the affirmative, but some of the non-official members had their doubts.

What England has long stood badly in need of has been a contribution to the manpower and a supply of food and raw materials. India has already given to the Empire what she could most liberally, and her unstinted sacrifice has been handsomely acknowledged. India's readiness to raise an army of 500,000 was itself a material contribution to the strength of the Empire and its cost of £ 45 millions is a mere flea-bite to a country which is spending that amount in a week. Every million that could be placed at England's disposal would no doubt be welcome but this is a question of comparative ability to bear financial burdens. While £ 45 millions would mean a lot to poor India, it would be nothing to England. But it may be asked, if India could easily spare the money, as most of it would come out of the pockets of those who were making huge war profits, would it not be meanness on her part to ask England to pay for the army that was raised for her own defence as much as for that of the Empire? This argument ignores altogether the economic conditions in India, her proverbial poverty and the imperative need of conserving and developing her resources in the interests of the Empire and of her people. It is forgotten that India has suffered a deal owing

to war conditions. Even before the war, the want of funds was invariably pleaded in putting off essential schemes of social and economic reform. Her position is not likely to be much better after the close of the war and hence it was necessary to pause before committing the country to an expenditure of £ 45 millions. The Indian people do not complain of the sacrifices they have had to make, and they are not unwilling to make whatever contribution they can. The reference to imperial loyalty and to the coming reforms was, therefore, not very relevant.

Instead of taking upon themselves a definite financial responsibility, the Government of India should, in our opinion, have decided what financial contribution this country was to make at a later stage. For years together our social progress has been hampered and the necessity of economising in all directions imposed by the war has brought all advance to a stand still. If Government found a considerable surplus revenue at the close of the year and anticipated a large amount from the excess profits tax, they should have provided out of this surplus for the reasonable needs of the country during the current year and the next; and whatever balance was left—it would not have been a paltry sum—should have been given away as an unconditional contribution to His Majesty's Government. The opposition Sir William Meyer's resolution encountered in the Council, whether on the ground of India's poverty or on the uncertainty in which the question of expenditure and taxation was involved, could have been obviated if this course had been followed. An unconditional gift of £ 100 millions has already been thus given and a similar though a smaller contribution could have been made in lieu of India's increased share of the cost of the war. The position of Government would, in that case, have been stronger and less open to objection. They could have said: here we have a balance of so many crores; out of it we are spending so much for the expansion of education and other urgent reforms. The remaining amount we propose to contribute as India's humble share of the cost of the war. But Government proposed another method of doing a thing which, in itself, was desirable, and unnecessarily provoked opposition. These are the usual ways of the officials. It is to be regretted that the people's point of view and the feeling of the country were not properly put before the Government except by one or two members. The non-officials were probably overwhelmed with the burden of responsibility which was thrown upon them. That is not, however, a satisfactory explanation.

V. G. KALE.

LANDHOLDING AND FRAGMENTATION.

The process of fragmentation that is running riot in the system of landholding in India is becoming more serious every day. The evils of the system are, no doubt, very heavy involving cumbrous processes to the Government and serious losses to the holders. To the Government, the task of preserving the huge and progressively voluminous records, consume much men and money. The measurements and preservation of lands and their pattas, with all their angularities, tax the ingenuities of even the most proficient geometrician. Small areas, subdivided into smaller plots, lead in a majority of cases to unnecessary litigation by way of encroachment and otherwise. The boundary stones, one of the greatest curses of the villagers, fluctuate in location in proportion to the degree of love, the Karnam bears to the parties. In short, a check in fragmentation is beneficial to the Government administratively in all its phases.

Nor are the land owners without their due share of losses and difficulties. Fragmentation demands more labour than unified holdings. The loss of time and energy for the mobility of labour in times of season, from one area to another, react a great deal against convenience and efficiant production. Neighbourly hatred, mutual jealousy, and unnecessary litigation are fostered by fragmentation. Bribery and corruption have also their due share. It will therefore be as much to the economic progress of the landholders as to the administrative convenience of the Government, to find an early remedy for this devitalising vermin.

Professor Gilbert Slater, in considering the English system of Enclosure, as a remedy for fragmentation, dwells mainly on the advantages of the latter. Independence, self-respect, co-operation, and character are all, according to him, essential features of fragmentation. He quotes the instance of the parish of Axholine, in England and concludes.

" English experience appears to me to suggest, at least possibility, that whatever advantages might arise from the application to India of a policy of " The village in the melting pot ", such advantages might be dearly purchased at the expense of much social and political bitterness; that the gross produce of the soil would very likely be diminished rather than increased, that it migh result in sweeping away from the villages great number of peasants, at present utterly unprepared for urban life and not yet in adequate demand for the

undeveloped urban industries. While the economic progress of India, in view of the steadily increasing population, may demand an increase in urban industries, a partial commercialising of Indian agriculture and a flow of labour from villages to towns, yet for the sake of both town and country, one may well hope that the exodus will take place by the peasant being attracted into the towns, and not by his being driven from the villages. In England Enclosure created the latter force."

On these grounds, then, he seeks to perpetuate fragmentation. Every sentence of his conclusions requires careful examination, especially, from the point of view of India's present industrial and agricultural situation. Professor Slater would postpone reform in this direction until the arrival of that glorious day, when labour will be gravitated towards metropolitan and urban life. It is hard to expect, especially in a country like India, such a glorious era. For centuries together, the glories of rural life have been embedded too much in the organism of the Indians, and it will be many centuries more before the tenacity for rural life is conquered. On the other hand, if India wants to take her place industrially amongst the nations of the world, as she undoubtedly looks destined to be, gifted with all the natural conveniences necessary, then it must be only through the sheer force of cheap labour, looming large in the industrial horizon, which must force the capitalists, small as they are, to divert this available labour into some sort of productive industrial pursuit. Thus to bring about an industrial revolution, abundance of either capital or skill or labour must act as an external agent, coercing men into industries. The first two are not of cheap avail in India and the incentive for industrial regeneration must therefore come only from the last. To bring it about, the tenacity of the people for rural life, must be got over and reform in some direction or other alone must come to the rescue. Prof. Slater himself in this connection remarks, that attempts at reform against fragmentation in England enabled the "Landowning class" to monopolise "Political power" culminating in the fact that "during the Napoleonic war, the labour which was liberated from its attachment to the soil, became available for recruiting the armies and for swelling the number of operations in the rising of textile factories". If anywhere such results of reform were ever necessary, it is only in India and that just now. Thus it is hard to agree with the writer in his conclusions even on his own grounds.

To remedy this growing evil, the Gaekwar of Baroda sometime ago appointed a commission to consider the whole question. The commission have come out with a lengthy report in which they recommend drastic changes in the laws and customs obtaining in India to-day. Prof. Jevons of Allahabad University recommends the adoption of the English system of Enclosures, which is criticised, though not exhaustively, by Prof. Slater in the Journal of the Indian Economic Society (March 1918).

The first step in legislation is to be found in the proposed "small holdings bill" of the Hon'ble Mr. F. G. Keatinge in the Bombay Council. It requires careful examination before it can find a place in the Statute book. Two clauses, especially, require special attention. Keatinge suggests that holders of land should be given the option to register as one holding a number of plots, situated side by side, a certificate to which effect may be obtained as the result of registration. The total area so registered becomes one holding, and is thereafter indivisible. He places no limit on the total area of small plots that can be registered as one holding. Thus an ambitious man, possessing a hundred acres of land all in one compactness, can register it as a holding. Taking his successors to be half a dozen sons, it is a problem how to divide this indivisible holding amongst the six sons equally. The honourable member suggests that the succession of unified holdings must always be by the eldest son.

One reads in this solution the nearest approach to the law of primogeniture of England. It is a drastic change in the laws of succession amongst the Indians and it remains to be seen how far people would countenance this new system. Whatever proposals are made, whatever area of land is declared as the total maxima and minima for reservation as one holding, it is yet a problem how to sub-divide it. Taking the area of a holding, legislatively prescribed, to be one acre, it is difficult to suggest a method of partition amongst three sons of a holder, possessed of an acre or two only as property. The eldest son or any of the sons may not be financially well off, to meet the liability of the other son or sons.

The question of fragmentation, therefore resolves itself into the two problems of (1) The lowest minimum that can be circumscribed as one holding, beyond the possibility of, or necessity for, further subdivisions and (2) The means by which questions in succession can be effectually solved without subdividing such holdings.

6th September 1918, Madras.

N. SWAMINATHAN, M. A.

REVIEW.

INTRODUCTION TO THE STUDY OF INDIAN ECONOMICS.

By Prof. V. G. Kale, M.A., Published by the Aryabhushan Press, Poona City. Price Rs. 5.

According to the well-known definition of Economics enunciated by Professor Marshall "Economics is the study of mankind in the ordinary business of life and it examines that part of social and individual action which is not closely connected with the attainment and with the use of the material requisites of well being." This difinition does not restrict the scope of the science of economics to the business activities of the people of a particular country. The phrase "Indian Economics", which is now very commonly used, is therefore, unfortunate, because it suggests that the usual economic ideas and theories are inapplicable to India, and makes people look upon Indian Economics as a separate branch of the study of economic theory. In reality it is merely the application of modern economic conceptions to Indian conditions. A book on "Indian Economics" can tell us something about the economic conditions of India, and the steps which are being taken or should be taken to increase the material welfare of its people. This is the purpose of a new book on "Indian Economics" written by Professor V. G. Kale, whose writings are well-known to the public. His "Introduction to the Study of Indian Economics", the second and revised edition of which has been recently published contains an examination of the principal economic problems of India and the chief features of its economic organization and development. The term "Indian Economics" which appears to be somewhat vague and unscientific, is thus given another lease of life on account of its adoption by a scholar of Professor Kale's learning and repute.

It is difficult to give even a brief review of Professor Kale's ideas and opinions. The author writes in a bright and lucid style on a variety of different subjects, and his views cannot be therefore summarised or criticised in detail in a short compass. That it is an excellent manual for college students as well as for those who wish to learn something about the economic conditions of India goes without saying, and the fact that Professor Kale writes on current problems with the detached mind of an academic man rather than of a politician lends weight to his views. It is doubtful, however, how far extracts from the speeches of members of Legislative Councils are admissible in a scientific treatit on economics, although

they serve to lighten its tedium and lend it a living, if transient, interest. The numerous quotations from various text-books of Economics also detract from the merit of the author's original contribution and it would have been better if most of them had been cut out. The author gives us a list of books of reference at the head of each chapter, and this will be a useful guide to students in their search for good text-books and reports.

Turning to the contents of a book of over 500 pages, (which in these days of high prices is cheap at five rupees,) we find that the author has touched upon almost all aspects of Indian economic problems, although he has devoted more space to some than to others. For instance the important subject of famine is dismissed in a page and a half, while nearly forty pages are devoted to fiscal policy and nearly fifty to taxation. There is a whole chapter on the co-operation movement a feature of which is the inclusion of an excellent précis of the Maclagan Committee's Report. Professor Kale is especially interesting when he brings economic theory into conjunction with essentially Indian ideas. Writing on the subject of Population he makes the following remarks: "Hindu law-givers looked, and rightly looked, upon marriage as a necessary social institution and a sacrament. Perpetuation of the race is a sacred duty, and every man has to get out of the debt he owes to his father by having a son after him. The injunctions recorded in the works of Hindu law-givers show that they laid down rules for a society which required for its existence and progress a growing population of vigorous healthy men. Prayers were and are offered for the grant of a healthy and vigorous progeny.....But times have changed and with them must change social ideas, laws and customs. The struggle for existence—if not also education and the efforts of social reformers—is steadily pushing up the marriageable age of girls as well as of boys. In fact, early marriages of the latter are entirely opposed to the rule of Brahamacharya strongly insisted on by the ancient law-givers.....To a Hindu, marriage and the begetting of a son, is a duty which he owes to society. But it is sorely to misunderstand the spirit of the law-givers and of ancient practice to suppose that religion imposes upon the householder the duty of begetting children for whom he cannot hope to provide and that a limitation of the family by the exercise of prudence would violate the injunctions and dictates of morality." The author is emphatically of opinion that birth-control is necessary in view of the steady increase in the population of India. (It might interest Prof. Kale and others of his way of thinking to know that a writer in the April "Edinburgh Review"

has an article on "Population and the food supply" in which he gives expression to similar views.) Professor Kale is also emphatic in repudiating the notion that the present economic condition of the country is due to depressing Indian ideals. "Some of the wealthiest and most enterprising Indian manufacturers and merchants" he says "are people who are little tinctured with western civilization. Some of the Indian capitalists, mill-owners, and traders who have adopted western methods of making money are even renowned for their staunch orthodoxy in religious and social matters. The Marwaris, the Jains, the Bhatias, the Khojas and the Memans, who are so remarkable for their enterprise and acquisitiveness have had little benefit of English education, and in fact, it is notorious that the small section of the population who have imbibed western culture, and are trying to assimilate it, have, with the exception of the Parsis, practically no share in modern wealth production." Writing on the neglect of labour, the author mentions the lack of education and training as contributing to the inefficiency of labour, and he opines that given proper training, congenial surroundings, and healthy conditions, the efficiency of labour is bound to be high. We should like to quote some more interesting extracts from the book, but we shall close this brief review of it with just one more excerpt :—

"It is a mistake to suppose that India has ever been an agricultural country. It had in the past a splendid combination of agriculture and manufactures. What is wanted is the industrial resurrection of India. The ruralization of the country has gone to such length that the industrial achievements of the people, their talent, and their natural and acquired aptitude have been forgotten..... With systematic organization and patient and zealous encouragement, a variety of industries will rise in India, making her people progressive and prosperous. There is at the present moment much undirected effort and waste of energy, and the forces of scientific knowledge are not being brought to bear on our indigenous industries and commerce. More of our people should take to business, but they must be thoroughly trained and equipped and ought to get opportunities to learn and rise. The old economic organization is steadily crumbling and it has to be adapted to the changing conditions."

Prof. Kale's book on "Indian Economics" is on the whole very stimulating and should prove a valuable contribution to the growing literature on the subject.

M. A.

FACTS & STATISTICS.

Ship-Building activity in the East. The United States Shipping Board has awarded a Chinese Government yard at Shanghai contracts for building four cargo vessels of ten thousand tons each. A joint Sino-Japanese-British shipping corporation with one hundred million dollars as capital is in contemplation and if formed will receive concessions from Chinese Government. Many Japanese ship-building companies are busily engaged in the construction of wooden vessels. A new *concrete vessel,* to be used as ferry boat to convey the goods wagons of the Federated Malay States Railway across the Johore Straits was launched at Singapore early in July.

The output of bar gold from the **Mysore gold mines** during the calendar year 1916 amounted to 554, 248·43 ounces of the value of £ 2,123,073–7–8 as against 571,199·36 ounces of the value of £ 2,173,065–10–10 in 1915. The decrease of 16,950·93 ounces in output and £ 49,992–3–2 in value was due to the ore obtained from the mines being of lower grade than in the past.

The total **mineral production of Burma** last year amounted to Rs. 3,82,96,092 compared with Rs. 3,28,66,237 in the previous year of which more than half is provided by the petroleum output.

The **United Provinces' Board of Industries** have recommended the following subjects for the award of State Technical Scholarships for 1919 : (1) Wood distillation (2) Electrical Engineering (3) Dyeing of textile fabrices.

The Baroda Government helps infant industries very liberally. In 1916-17 a loan of Rs. 15,000 was given to the National Metal Works Company, Limited, and another of Rs. 35,000 to the Hind Candle Works of Billimora, bringing the total loan to the latter industry to Rs. 1,60,000. The requests of Mr. Ganpule of the Baroda Tile Works for Rs. 50,000 and of the Kansara who is turning out copper sheets for Rs. 5,000 have likewise been granted.

At the end of 1916-17 the total **open mileage of railways** owned by the **Baroda State**, was 501·786 miles. There were besides about 132 miles of railway under construction.

In 1916-17, the birth rate per mile in the **Baroda State,** was 30·9 while the death rate was 26·7. For every 100 female births, 112·9 male births were registered and for every 100 female deaths, there were 113·6 male deaths. This higher rate of male mortality is apparently due to the harder struggle for existence.

Receipts and Disbursements of the Baroda State for 1916–17.

No.	Description of Items.	1916–17.	No.	Description of Items.	1916–17.
1	2	3	1	2	3
		Rs.			Rs.
1	Rand Revenue	1,20,24,543	1	Land Revenue	20,73,011
2	Miscellaneous and Taxes.	2,08,476	2	Other Revenue Branches ...	1,96,586
3	Forests	2,47,967	3	Forests	84,802
4	Abkari	22,89,660	4	Stamps	38,949
5	Customs	1,31,281	5	Registration	39,817
6	Stams	7,18,183	6	Tribute, etc., received through the Residency ...	...
7	Registration	1,58,534	7	Tribute, etc., received direct.	202
8	Tribute and fixed Jamabandi received through the Residency	5,82,165	8	Opium	1,16,386
9	Tribute and fixed Jamabandi received direct ...	9,829	9	Railways	...
10	Interest	9,31,509	10	Palace	20,14,357
11	Village Boards Revenue...	16,287	11	Huzur Raj Karbhar—	
12	Opium	5,34,503		(*a*) Tour Expenses ...	3,727
13	Railways	10,38,341		(*b*) Huzur Kutcherries ...	6,19,785
14	Irrigation	34,092	12	Judicial	4,04,806
15	Palace 18/A	...	13	Police	8,64,425
16	Judicial Fees and Fines...	1,18,232	14	Jail	67,545
17	Jail	26,814	15	Education	20,43,086
18	Education	1,34,927	16	Medical	3,09,359
19	Municipalities	12	17	Printing Press	81,720
20	Public Works	4,89,721	18	Local Boards, etc., 25/A ...	4,70,938
21	Miscellaneous (including Ferries, Police, General Administration, &c.) ...	5,16,004	19	Municipalities	3,871
			20	Public Works	26,14,059
			21	Army	19,14,199
			22	Devasthan-Dharmadaya ...	2,42,230
			23	Assamdars Nemnookdars ...	5,33,061
			24	Pensioners	2,24,755
			25	Marriages in the Royal Family	755
			26	Extraordinary including Famine, etc.	79,795
			27	Miscellaneous including Interest, Ferries, Irrigation, etc.	4,86,899
	Total ...	2,02,11,079		Total ...	1,55,28,735

RECENT PUBLICATIONS.

GENERAL.

Allen.—History of the Tariff Relations of the Australian Colonies (University of Minnesota). 4*s*.

Jeudwine.—The foundations of Society and the Land (Williams and Norgate). 18*s*.

Problems of Reconstruction. Lectures and Addresses.—With an introduction by the Marquess of Crewe (Unwin). 8*s*.-6*d*.

Webb.—Municipal Government in Ireland. Medieval and Modern. (Unwin). 5*s*.

Spooner (J. H.).—Wealth from waste. Elemination and Waste (Routledge). 7*s*.-6*d*.

Orven.—Slip Economics (Second Edition). (Philip and Son). 5*s*.

PARLIAMENTARY.

Interim Report on the Importation of Goods from the Present Enemy Countries after the War (cd. 9033). Price 1*d*. 1918.

Interim Report on Certain Essential Industries (cd. 9032). Price 2*d*. 1918.

Interim Report on the Treatment of Exports from the United Kingdom &c. during the Transitional Period after the War (cd. 9034). Price 2*d*. 1918.

Report of the Committee appointed by the Prime Minister to enquire into the position of Modern Languages in the Educational System of Great Britain. (cd. 9036). Price 9*d*. 1918.

Final Report of the Committee on Commercial and Industrial Policy after the War. (cd. 9035). Price 9*d*. 1918.

East India (Loans Raised in England) Price 1*d*. 1918.

Home Accounts of the Government of India Price 9*d*. 1918.

Report of the Committee Appointed by the Board of Trade to consider the Question of Electric Power Supply (cd. 9062). Price 3*d*. 1918.

Review of the Trade of India (cd. 9067). Price 1*s*. 3*d*. 1918.

Statistical Abstract for the Several British Self Governing Dominions from 1901 to 1915. (cd. 9051). Price 2*s*. 1918.

Report of the Departmental Committee Appointed by the Board of Trade to Consider the Position of the Textile Trades after the War. (cd. 9070). Price 1*s*. 3*d*. 1918.

Do. Do.

Iron and Steel Trade after the War. (cd. 9071). Price 6*d*. 1918.

Do. Do.

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VOL. I.] DECEMBER, 1918. [No. IV.

JOURNAL

OF THE

INDIAN ECONOMIC SOCIETY.

THE INDUSTRIAL COMMISSION AND TECHNICAL EDUCATION.

When the Industrial commission was appointed by the Government of India in 1916, it was welcomed as an evidence of the more or less complete change of sentiments and attitude that the war had brought about in the Government of India in matters connected with the industrial development of the country. When the rule of the East India company was replaced by the direct rule of the Crown the traditions of a *laissez faire* policy found ready acceptance in India and the Indian Government adhered to and acted on the principle that any direct interference with industrial development was more likely to do harm than good, and the efforts of the state were strictly confined to improvements in communications which facilitated the export of raw material and import of manufactured goods. Even before the outbreak of the war, however, it was realised that things were gradually changing, that the Government was abandoning its attitude of aloofness in favour of a more active coöperation with the promoters of Indian industries, by providing a system of technical and industrial education, however imperfect in the beginning, by the collection and dissemination of industrial and commercial intelligence, by the creation of a separate imperial department of commerce and industry, by grants and loans to a few experimental concerns. The terms of reference of the Industrial Commission of 1916 include among other things the question whether Government can give direct encouragement to industrial development by affording financial assistance to industrial enterprises. The war which has brought about such a radical alteration in the Englishman's political outlook, which has made England familiar with conscription, and organisation of labour and food-stuffs, and control of shipping and industries, has had its effects

in this country; and the definite abandonment of the *laissez faire* traditions of an earlier generation may well be hailed with satisfaction by Indian public opinion.

Whether the expectations formed in 1916 on the appointment of the Commission have all been realised is another question. We do not propose to cover the entire ground of the Report; it is just enough for our purposes to point out that the specific exclusion of the tariff question from the scope of the Commission's enquiry was to stultify its deliberations by depriving them of the power to make recommendations bearing on what would be universally recognised as the most effective method of Government assistance to industries. When we turn to the actual recommendations we find for instance that whereas the terms of reference raise large issues in the matter of financial assistance to Indian industries, the Report devotes a few pages to the technical assistance which Government experts may offer to large and small industries, and as for financial assistance the Report indulges in platitudes about the desirability of establishing industrial banks through private enterprise, and refers to the possibility in a few cases of guarantees of dividends or of undertakings for purchasing output for limited periods, taking care to add, however, that these are in the nature of " general suggestions ", pious wishes for tickling Indian sentiment more than definite proposals which may crystallise in action.

But we propose to confine ourselves only to one part of the Commission's Report, viz., recommendations in the matter of industrial and technical education. The Report admirably summarises the history of the efforts made so far by Government in the matter of technical education in India. Technical education in India has been largely directed to the forms of instruction required to train men for Government service as engineers, mechanicians, electricians, overseers, surveyors, or for employment in railway workshops, cotton mills and mines. Among the institutions that answer these purposes are the College of Science at Poona, the Engineering Colleges at Roorkee, Sibpur and Madras, the Victoria Jubilee Technical Institute at Bombay and the Engineering School at Jubbalpore. Subsequently the Government of India instituted state scholarships for technical study abroad of the annual value of £ 150, and under the scheme more than a hundred students were sent abroad of whom 60 have returned to India. The Commission recommend that scholarships should not

be granted in those subjects for which India provides adequate educational facilities. They further affirm that scholarships should not be afforded for industries not existing in the country, and doubt whether their grant even to persons who can "secure the coöperation of promoters" of non-existent industries will have very useful results. Now it seems to us the idea underlying the dictum here stated is that technical education should follow the organisation of industries :or grow up alongside of them; and that in a country where few industries are established the education of young men trained up for posts which do not exist may prove a curse instead of a blessing. Thus we are often told technical education would not produce industry, and that what is required is not a system of state scholarships for education abroad but measures for educating the minds of capitalists so that they would realise the advantages of starting industries. But even the Atkinson Dawson Committee, whose investigations were urged as a plea for excluding from the scope of reference of the Industrial Commission a number of questions, when examining the question of technical scholarships, did not suggest the abandonment of scholarships for industries not existing in the country. All that they said was that educational distinctions achieved in England or elsewhere are, from the commercial point of view useless to any employer unless practical experience has been obtained in addition, and they accordingly recommended that students should not be sent to Europe till they have learnt all that they can possibly learn in this country, and they insisted on the students in Europe learing details of practical work and organisation of modern factories. Are we not arguing in a circle when we disapprove of scholarships for training in non-existing industries, and when asked why with ample resources for industrial development the country is still lagging behind, point to the absence of enterprise and technical training ?

The commission find that the evidence of employers is universally in favour of labour, both skilled and unskilled, that had at least received a primary education, as tending to make them not only more intelligent but also more self-respecting. While they strongly endorse the views of employers regarding the fundamental necessity of providing some form of primary education for the artisan and labouring population, they are opposed to any scheme that would compel individual employers to provide such education. They are prepared to advocate a system of grants-in-aid by the local Government to such employers, but they evidently consider it beyond the scope of reference to

recommend even the extension on a limited scale of a system of free and compulsory primary education.

Turning to the training of men for the organised industries the Commission divide them into two classes, manipulative such as mechanical engineering, and non-manipulative such as the manufacture of chemicals. With regard to the first class of industries the Commission insist on training being given in the works themselves, to which theoretical classes may be attached. They observe that practical training given in a school does not offer the student the opportunity of accustoming himself to mill conditions and of acquiring experience of mill management. Thus, while discussing in detail the training of mechanical engineers they state that the atmosphere of the work-shop cannot be obtained in the school, and the importance of this is so great that they are convinced that mechanical engineers must be trained in the work shops, receiving supplementary class instruction in technical schools alongside. Now if the object of such training is to turn out men who in after-life would be responsible for the design and construction of machinery and structural iron work of every kind, what is needed in the first instance is training in an up-to-date technical institution, with an apprenticeship of two or three years in workshops, as an essential preliminary to the granting of certificates or diplomas. What is wanted is a closer co-ordination between the technical schools and the employers of labour, which would enable the latter to draw regularly upon the schools for apprentices and the former to act as feeders to the workshops and industrial enterprises. The Atkinson Dawson Committee examined this question at some length and found that training in a technical institute followed by an apprenticeship in work was the most suitable system to the needs of India. They pointed out that an ordinary aspirant to a technical career is not in a position to obtain an apprenticeship in works, that after a break of three or four years in his education he would find great difficulty in settling down to organised instruction in a technical institute, that after a year or two of apprenticeship he would be drawing wages which he would be either loth to give up, or he would be financially unable to attend a technical institute course, and that by attending a technical institute he would lose touch with the opening he had made for himself in the workshop he had attended.

We heartily approve of the Commission's idea of turning the Engineering Colleges into technological institutes, to abolish the

school departments of these colleges, and to make provision for the education of subordinates in separate institutions. The Commission also foreshadow the establishment of an Imperial Engineering College, staffed with specialists of high reputation, provided with adequate equipment for both teaching and research work. What is more urgently required is, however, the establishment of a larger number of engineering colleges like those at Poona and Sibpur to meet the increasing demand for admission on the part of graduates and undergraduates. It is but too well known, for instance, how in this presidency a large number of students are refused admission for the Engineering courses, how those who are admitted are some times obliged to take a four years course instead of the three years course laid down in the University regulations, how the majority of those who find admission are men who have already submitted to a four years training in an arts course. A multiplication of engineering and technical institutions of all kinds will not mean a flooding of the country with unemployed engineers and mechanics; there is a growing field for artisans and engineers which existing institutions hardly cover; and we only wish all such institutions were linked together for the common purpose of industrial development, coördinated by the inspiration of common ideals. Germany before 1871 was practically a negligible quantity in the world market, hampered in her industrial growth by the distractions of war, by burdensome taxes and customs duties, by the want of capital, by the traditions of an agricultural population. Thirty years after 1871 Germany was transformed into a leading industrial country, competing on terms of equality with the United States and Great Britain. We need not dogmatise as to the causes that brought about this change; but one amongst them was undoubtedly to be found in the net work of technical schools and training facilities provided for the nation by a Government that believed that it could foster and advance the material prosperity of the people by a carefully devised educational system. Writing in 1904 the American consul-general in Berlin observed: "Similarly in the iron and steel manufactures and in the long, varied schedule of textile production, it is only the possession of a vast army of skilled chemists, metallurgists, designers, dyers, weavers and spinners, recruited year by year from graduates of the Universities and technical and industrial art schools and backed by salesmen and merchants elaborately educated and trained for commercial work in foreign countries, that has enabled Germany to practically monopolise certain special forms of manufactur-

ing, and, despite limited natural resources, to conquer and maintain a place in the front rank of industrial nations."

Higher commercial education is as yet unknown in India. The report incidentally devotes a page or two to the subject, rightly emphasising the need for a multiplying of commercial institutions like the Sydenham College of Commerce in Bombay, imparting culture in commercial subjects for those whose ambition is to rise to the position of organisers and captains of industry, to help on individually and collectively in the uplifting of the country to a higher level of material and moral greatness. The report scrupulously refrains from any opinion as to the success or otherwise of the Sydenham College of Commerce. There is no doubt that the college is a popular institution and meets a current demand. But it has been already pointed out by critics that the calibre of students attracted to the institution is inferior to that of students graduating in Arts, that the ideals of culture are systematically sacrificed to considerations of utility and immediate gain, that the prestige of the degree is lowered by the authorities of the college endeavouring to place commerce graduates in good positions, that the methods of teaching suffer through the unfortunate system of appointing half-time lecturers whose energies are divided between the duties of their ordinary avocations and the supplementary duties of teaching.

The recommendations of the Commission in the matter of technical and industrial education generally mark an advance over the traditions of earlier generations; they serve to rouse and educate public opinion; and we look forward to a time when the people of this country, realising the need of industrial development, will come forward with generous offerings for the foundation of technical institutions and schools and academies for scientific research; and it will be for the rulers of the country to give that healthy guidance and protection characteristic of the traditions of British statesmanship at its best. Great Britain itself has learnt much in the course of the war; the war has thrown a fierce light upon the relative inefficiency of British industrial organisation. Employers and workpeople were found old-fashioned and easy-going; the connection between research and industry, between exact knowledge and business enterprise was found to be neglected; and while the "University doctor" in Germany and the "college man" in the United States were applying their brains to production and to the development of new markets, the British

University output, small in numbers, was characterised as being out of touch with the industrial and commercial life of the country and their technical institutions as languishing. Let us hope, now that the war has ended, and Great Britain has leisure to attend to the task of putting her own house in order, that when this work is accomplished the dependencies of Great Britain and the members of the Empire will benefit as well by the lessons of the war, and that India will not be forgotten in the work of industrial reconstruction and regeneration.

P. A. WADIA.

THE BANKING NEEDS OF INDIA.*

It has been admitted very recently that the industrial and commercial reorganization and development are essential elements in fostering India's political and social advancement. This admission has come not only from the leaders of public thought, most of whom realised this many a year ago, but also from those who are responsible for the good government of this country. For instance, the eminent authors of that historic document, the Montagu—Chelmsford Report, assert, "On all grounds a forward policy in industrial development is urgently called for not merely to give India economic stability; but in order to satisfy the aspirations of the people who desire to see her stand before the world as a well-poised, up-to-date country, in order to provide an outlet for the energies of her young men who are otherwise drawn exclusively to Government services or a few overstocked professions; in order that money now lying unproductive may be applied to the benefit of the whole community; in order that too speculative and literary tendencies may be bent to more practical ends and the people may be better qualified to shoulder the responsibilities which the new constitution will lay upon them." Further on they say "We are agreed that there must be a definite change of view; and that the Government must admit and shoulder its responsibility

*A lecture delivered on 22nd January 1919 at the Sassoon Mechanics' Institute, Bombay.

for furthering the industrial development of the country." This welcome change in the policy has been brought about by causes into which we need not go, but it cannot be denied that the war accounts a great deal for it. On the one hand it has shown the utter dependence of India on other countries for most of the manufactured and semi-manufactured goods, and on the other her war products have brought to light her industrial potentialities.

We must not, however, forget that this welcome change however helpful it may be in furthering the development of India's resources, cannot by itself supply us the means and conditions necessary for the industrial regeneration of our country. In these days of complex machinery and large scale production, one of the most important factors essential for the economic regeneration of a country, is capital. It is true that capital per head of population in India is very small as compared with some of the western countries; but, it cannot be denied, even when one does not believe in the theory of India's hoards, that a fairly large portion of the savings of her people do not enter into productive channels. We cannot account for this by saying only that it is due to the hoarding habit of the people or the lack of mutual confidence, but we must also admit that "hoarding" more often than not is involuntary and may be attributed to the sheer absence of banking and investment facilities. A correspondent of the Statist writing some time back said, " I quite agree with you that putting money into ornaments is sheer waste, but the ryot is not to blame for it. All present facilities for investment are only practicable for the literate class and you know how small a percentage of the total population is literate."

The successful floatation of concerns like the Tata Industrial Bank, Ltd., the Tata Iron & Steel Co. Ltd., the Tata Hydro-Electric and the Andhra Valley Companies, clearly shows that in such parts of the country as provide these facilities, people are not slow to put in their savings in companies managed by well-known firms. The short comparative table given below shows how inadequate are the banking offices in this country.

Comparative Position of Banking in certain Important Countries on December 31, 1914.

	United Kingdom.	Canada.	United States of America.	India.
Number of Banks	57	22	24,118	61
Number of Banking Offices ...	7,832	3,159	30,000*	350
Number of Banking Offices Per Million Population.	172·6	438·4	326	1·1
Total Capital and Reserve ... (In thousands)	£134,062	£45,578	£750,000*	£8,084
Capital and Reserve, Per Million Population. (In thousands).	£2,955	£6,325	£8,044	£26
Total Deposits ... ... (In thousands).	£1,257,720	£223,800	£2,820,000	£59,033
Deposits, Per Million population. (In thousands).	£27,721	£31,751	£30,672	£187

* Estimated.

From the table given above we see that roughly there was only one Banking office for every 900,000 persons in India whereas in the U. K. there was a banking office for roughly every 5200, in the U. S. for every 3000 and in Canada for every 2200 persons.

Moreover the paid up Banking Capital and Reserve in India per Million of population was ·008 of what was in the United Kingdom., ·004 of what was in Canada and ·003 of what was in the United States. These figures lead us to consider the Banking needs of India.

1. India wants a Central or State Bank with a large paid up capital and a network of branches in at least all the district towns.

Grounds for the suggestion.

First of all, such a bank is needed, if for nothing else, at least for dealing satisfactorily with the Cash Balances of the Government. Taking the average for the period of five years (1908-09 to 1913-14) we find the Cash Balances in India amounted roughly to Rs. 22 Crores and those in England to Rs. 20 Crores. Out of these balances in India

large sums are locked up in Reserve Treasuries which were started in 1876 on account of the difficulty felt by the Government in withdrawing funds from the Bank of Bengal in 1863 and from the Bank of Bombay in 1874. If a State Bank with a large paid up capital is started there is hardly any doubt that the balances, which now lie idle in these Reserve Treasuries, will be transferred to this Bank and will be utilised for helping the trade of the country. Similarly, the work of the District Treasuries and their cash balances might easily be transferred to the branches of this Bank. These branches of the Central Bank will not only manage the present routine work more efficiently but will also provide facilities for the exchange of notes into rupees or *vice versa*, and thus help the trade of the country. The Bank will be in a position to encourage their use to such an extent that even the cultivator may begin to accept payments in notes because of the knowledge that they will be encashed by a branch of this Bank at a neighbouring district town.

Just as in India the Bank will manage the Cash Balances kept here, its London branch will utilise the heavy balances now kept in London and manage the finances of the India Office.

Another reason why such a bank is needed is that the artificial system of our currency requires considerable management. If the exchange value of the rupee is to be maintained at 1s. 4d. or 1s. 6d. the authorities both in England and India must be prepared to convert gold into rupees or *vice versa* according to the needs of the trade. However efficient the Government management of our exchange relation may be, a bank is better suited for this work than a Government office.

Thirdly our paper currency system is based upon a principle which makes it inclastic. But Government issuing paper currency as a public monopoly can not very well abandon a principle which ensures the prompt discharge of obligation even at the risk of inelasticity. Consequently the trading community has to suffer thereby. When it is suggested to alter the principle of the note issue of the Bank of England which was more or less imitated by Mr. Wilson, our first Finance Member, in regulating the Government paper currency in this country, is it not desirable to examine whether, this function cannot be better performed by a Central Bank ? If it be argued that by handing over the function of note issue our Government

will lose an important item of revenue, it can be pointed out that the Government can derive a larger revenue by sharing the profits of the whole business of the Bank or of its note issue section. If an example is needed the division of profits between the Imperial Bank of Germany and the Imperial Government is an instance in point. The Imperial Treasury of Germany received over 40 million marks in 1907.

Fourthly, such a bank is needed to give help to other banks by providing facilities for the grant of loans at reasonable rates and also for rediscounting commercial paper in their hands. The Official Committee, appointed by the Punjab Industries Committee, to examine and report upon the causes of the recent failures in financial and industrial enterprises in the Punjab clearly put forth this need. Their report says "During the crisis there was no co-operation between the Indian banks themselves or between them and the English Banks or between them and the old fashioned Indian Banks. We attach peculiar significance to the statements made by the witnesses as to the position of the Bank of Bengal. While the fact that the Punjab National Bank has been received on the clearing list only however after surviving the crisis shows that at present good relations do exist and that there is future possibility of better, yet the absence of a principal bank meant the downfall of sound banks which might have been saved." Further on it says :—"The Lahore branch was willing to help and made recommendations to Calcutta, but these were rejected with curtness and not even on the deposit of Government paper would the Bank of Bengal consent to advance money to the Punjab National Bank." If we have a Central Bank knowing its responsibilities and the fear of losing its charter in case of grave blunders of this kind, repetition of what happened at Lahore some five years ago will become an impossibility.

Fifthly, the proposed Bank, on account of having branches in all district towns, will be in a position to provide facilities for the remission of money from one part of the country to another, just as is done by the Imperial Bank of Germany by means of Giro transfers. For example, if a person having a deposit account with the Hamburg branch of the Imperial Bank of Germany, wishes to remit 10,000 marks to a friend having an account with the Frankfurt branch of the same Bank, he has simply to write to the Hamburg office, and the amount is transferred from his account to that of his friend, at a nominal charge of one mark.

Sixthly, such a bank can also render assistance to the co-operative credit movement and industrial development by helping the Central Co-operative Banks and Industrial Banks.

Possible opposition and objections.

Presidency Banks, it may be argued, are likely to oppose such a scheme. Leaving aside for the present the proposal for amalgamating the Presidency Banks and converting them into a Central bank, it may be said that the proportion of public business to the total business of these banks is so small that in return for the removal of the restrictions upon their operations they may be willing to forego the Government business. They have already established themselves and the fields of activities for the banks in India are so wide that they might not take any strong objection to the new institution. In case it is found essential to start such a central institution in the best interests of this country, Government may compensate them in an indirect manner or even ignore their protest as Government has not bound itself to give them public business for ever. Further, if their shareholders' dividends have to be reduced slightly on account of the loss of this public business such a reduction should not stand in the way of this country meeting its banking needs. Lastly, if it is not considered possible to satisfy the Presidency Banks or if it be regarded wholly unfair to ignore their claims to public business, these banks should be amalgamated and permitted to raise their capital by twice the amount of their paid up capital and reserve on condition that preference is given to Indian applicants for these new shares to such an extent that at least half of the total number of the shares of this Bank comes to be held by Indians. Another condition should be that at least one-third of the seats on the Board of Directors of the Bank must be reserved for Indians so that the present complaints regarding unfair treatment to Indian clients by some of the Presidency Banks may be removed. Moreover its charter should be renewed every ten years or so.

If the right of note issue is transferred to this bank Government may also participate in the profits of the Bank after it has paid a dividend of say 5 per cent.

Critics of this proposal point out that such an institution would likely be a dangerous and ungovernable anachronism fatal alike to the interests of the Government and the trade. They tell us that no

State Bank could have maintained and extended the prestige of the note currency as was done by the Government of India during the war time. In answer to this it may be remarked that no doubt our paper currency has expanded largely during the war but the expansion has by no means been anything like what it has been in other important countries, as is clear from the following statement :—

A comparative statement showing the expansion of the Bank notes in circulation during the war. (£ millions).

	Prior to war.	1918 last week.	Per centage of increase.
England ...	29	70	141·3
France ...	236	1,209	408
Germany ...	95	1,109	1067·3
Holland ...	26	89	242·3
Japan ...	31	69	122·5
Switzarland ...	11	39	254·5
India	50	90	80

Moreover, it does not mean that if the note issue had been in the hands of the Central or State Bank, the Government would not or should not have tried to maintain and extend the prestige of the paper currency.

2. Besides the Central or State Bank, India needs many more Indian Joint-Stock Commercial Banks with a network of bank offices preferably managed and controlled by Indians. The comparative table given above clearly proves that the existing banks are most inadequate for meeting the needs of the country. This view is supported also by the Banking map* prepared by Mr. G. Findlay Shirras, the Director of Statistics, with such towns as had one or more banking offices on December 31st 1916 underlined. It shows that there is no bank in the whole of Assam, one banking office in the whole of Rajputana and that numerous cities and large towns have not even a single banking office. More banks are wanted not only for the purpose of mobilising the capital of the country and placing the same at the disposal of the trade of the country but they are equally desirable for the extension

* Statistical Tables relating to Banks in India for 1916.

of our paper currency. During the last four years our currency system has been strained a great deal on account of the large absorption of metallic money. It led the Government of India to issue many essays through various channels deprecating hoarding and calling attention to the great waste in relying too exclusively upon metallic money but they had very little effect. We also know how our currency notes in certain places fell below their face value and are even today at a high discount in several places. If India had a network of good banks spread all over the country, these currency troubles would not have been so acute as they had been. Instead of her absorbing metallic currency at prohibitive cost she would have extended the use of currency notes and cheques and helped the growth of bank deposits. The question is how to meet this need for commercial banks. Should we depend upon English or Colonial banks to open their branches or float subsidiary banks to exploit the banking field of this country? The answer to this question ought to be in the negative.

In the first place these outside banks, if admitted into the banking machinery of this country for internal business, are bound to take a complete control of our financial institutions. The monopolistic tendencies of the British Banks during the last 20 years in general and last 3 years in particular have alarmed the British people to such an extent that a Government Amalgamation Committee had to be appointed to inquire into the question. If British Banks are admitted in this country the Indian Joint-Stock Banks will soon be eliminated either by absorption or by cut throat competition on account of the enormous resources of the British Banks, and so the country will be left at the mercy of these banks in the matter of banking facilities of all kinds.

Secondly, such banks cannot possibly meet our needs not only on account of their being controlled by persons living thousands of miles away from this country and thus being not quite in touch with our needs but also because of their more costly management. In the proper discharge of banking functions the knowledge of the local conditions and the people is very essential; and in this the managers of the British Banks are bound to lack.

Thirdly, these outside banks are likely to insist on the use of English for their banking transactions on account of the simple reason

that their managers and other important officers are not likely to be well versed in the vernaculars. The point is that the exclusive use of the English language for most of our transactions, accounts for the availability of banking facilities to a comparatively few persons. For instance, the use of cheque currency is very restricted on account of the lack of facilities for those who are not in a position to draw cheques in English. Some banks allow such customers to sign blank cheques in the presence of Bank officials who have to certify such signatures. On account of the inconvenience which is entailed in getting the signatures on each cheque certified as mentioned above, and the risk which a customer signing all blank forms at the time of receiving the cheque book has to take, the use of cheque currency is discouraged. The correspondent of the Statist to whom I have already referred says, "A lot of difficulties here are also due to the want of sufficient banking facilities for even the middle classes and the bulk of the native merchant class. So far banking facilities are available in comparatively only a few centres up-country, and then the language which has to be used is English. If you imagine how impossible it would be to ask the Englishman to do all his banking in French, you could appreciate why even to-day, the mass of this merchant class, that is at least literate and know what it is about, still refuses to avail itself of even such banking facilities as are provided and still makes all receipts and payments in coin and notes where in other countries they would be taken care of by the cheque. This is another direction where the Government, if it sets itself to do it, could effect an important economy in the use of both metal and paper currency and consequently be able to economise in its purchases of silver for currency purposes." The inconvenience to which merchants unable to indorse cheques in English are subjected, is too well-known to be mentioned here. After indorsing the cheques they have to get the indorsements in vernacular translated into English before they can receive payments for such cheques.

For these reasons it does not appear proper for us to depend upon British or Colonial banks to supply this need of ours. It may be argued that the banking failures of 1913 and 1914 are too fresh to convince any one that Indian managed banks can succeed without a proper state control. To this the students of the financial history of other countries will reply that similar banking crises have occured in other countries and India's case is not an exceptional one. Regarding

state interference with banking, the following few remarks of Prof. Conant are so interesting that I make no apology for quoting them. He says, "The interference of the state in the direction of banking affairs and in the money market has been a frequent occurrence since banking acquired its modern development: but the business world and the official world differ so widely in their method and purposes, that such intervention has usually been blundering and has often proved mischievous. It is not surprising in view of such blunders, that many economists have advocated complete abstinence of government from interfering in the money market. The policy of non-interference is supported by the tendency of business operations, when left to themselves, to conform to certain general principles. These derive the character of laws not from the motive of self-interest which usually governs the individual at least in his economic relations." Banking legislation as long as it does not place serious obstacles in the way of geniune enterprise may be not only helpful but essential. I believe that the provision of facilities for the training of Indians for banking business is more necessary than any banking legislation for the prevention of crisis like the one we had about five years back.

3. Another important banking need of ours is to have some specialised banks for financing our industries and agriculture. The Industrial Commission's Report says, " We have shown that the lack of financial facilities is at present one of the most serious difficulties in the way of the extension of Indian industries and we believe that industrial banks, especially under the improved conditions towards which measures proposed by us are intended to lead would be a potent means of removing these difficulties and of affording help to industrialists."

It is evident to those who know anything about the fundamental principles on which our existing banks work that they are not in a position to do much in the matter of industrial finance for the simple reason that their own capital is generally small and the deposits they receive are payable either on demand or after the expiry of a short period. It is for this reason that they employ their funds chiefly in financing the commerce; hence they are called commercial banks. In a few cases some banks do grant temporary overdrafts to industrial concerns; but that does not change the nature of their business. We cannot blame them for their inability to finance our industries as under their

present circumstances they cannot afford to lock up their funds for long periods in view of the nature of their liabilities. It is true that the Tata Industrial Bank Ltd. has been started chiefly to meet this need; but I doubt whether its resources during the next few years will enable it to finance even the various schemes of such an energetic firm as the Tatas themselves. Hence we should have some more industrial banks with very large paid up capital. These industrial banks should as far as possible receive deposits for long periods and raise money also by the sale of long term bonds or debentures. It is only then that they can take up the work of industrial finance on a large scale. I would also suggest that these banks following the lines of the German Banks should place on the market industrial securities—shares, and debentures of industrial concerns.

Specialised banks of another kind are needed in the interests of our agriculture. Co-operative credit societies are yet a long way off from releasing the agriculturists from the clutches of the village Mahajans. Some estimate that a sum of Rupees 300 crores will be needed for this purpose. Whether this estimate is correct or not it is clear that the co-operative societies will not be in a position to render much financial assistance for the improvement of our largest industry. Therefore, it is necessary to arrange for the proper finance of our agriculture. It is essential not only in the interests of agriculture but it is of great importance even from the point of view of our industries whose biggest and surest market is the home market which really means the custom of the agricultural community.

4. It is also extremely desirable to make certain changes in the law governing the negotiable instruments in India. With a view to enabling our banking system to develop on proper lines, it is necessary that the law and the practice of banking must agree ; but the fact that it is not so in India was brought home to bankers recently by a ruling of the Bombay High Court. The point involved was whether striking off the word " bearer " on a cheque without adding the word " order " amounted to a restriction on the rights of the payee to negotiate it; and, although evidence was given to prove that the bankers in Bombay (like the bankers in England) treated such cheques as order cheques, the learned judge held that the law of this country did not treat them as such and therefore such cheques are not negotiable. Such a difference between the practice of bankers and the existing law stands, to a certain extent, in the way of the development of the use of

cheques. It is therefore necessary that the law should be altered to bring it into harmony with the existing practice of bankers. Another instance of the desirability of change in the law relating to the negotiable instruments is the amendment of section 85 and 131 of the Negotiable Instruments Act of 1881.

Section 85 of the N. I. Act lays down that "Where a cheque payable to order purports to be indorsed by or on behalf of the payee, the drawee is discharged by payment in due course." According to Section 7 payee is defined to be " The person named in the instrument to whom or to whose order the money is by the instrument directed to be paid." Therefore it is contended by an eminent authority, Mr. Arthur Eggar in his work Chalmers' Negotiable Instruments in British India, that the protection afforded by Sec. 85 will not extend to the case where the cheque has been indorsed by the payee and the banker pays it on an indorsement which is a forgery of the name of the indorsee. Under the English law the protection given to the paying bankers is wide enough to cover both cases. Therefore the position of the paying bankers should be placed on a more satisfactory basis, as it is not possible for them to know the signatures of the indorsees of various cheques.

Similarly, Section 131 lays down that "A banker who has in good faith and without negligence received payment for a customer of a cheque crossed generally or specially to himself shall not, in case the title to the cheque proves defective, incur any liability to the true owner of the cheque by reason only of having received such payment" It is contended that this protection does not extend to cases in which the banker credits his customer's account with the amount of the cheques or otherwise gives consideration for the same before its realisation, as then he cannot be regarded to have "received payment for a customer". This view is supported by Capital and Counties Bank vs. Gordon (1903) in which it was held that Sec. 82 of the Bills of Exchange Act 1882 which coresponds to Sec. 131 of the Negotiable Instruments Act of 1881 did not extend to such cases. This led to the passing of the Bills of Exchange (Crossed Cheques) Act 1906 which expressly extended this protection to collecting bankers in cases where they credit their customer's a/c with the amount of the cheques before receiving payment thereof. But, in India no act corresponding to the English Act of 1906 has yet been passed and therefore it is clear that the position of the collecting banker is not

as safe as that of his fellow-bankers in England, and the sooner the law on the point is amended the better it will be for the expansion of banking business in this country.

5. Last of all but certainly not in any way less important than those mentioned already is the need of some organisation to look after the interests of the banks of this country, to promote co-operation among them and to provide facilities for the training of young men for banking profession. The absence of co-operation between the Indian Banks as well as between the Indian and English (managed by Europeans) banks was responsible to a certain extent for the failure of some banks during the crisis of 1913 as is clear from the extract of the report of the Punjab Official Committee given above. Such institutions exist in countries like the United Kingdom as well as the United States. For instance, the Institute of Bankers in England not only takes such steps as are necessary for the protection of banking interests but also arranges evening lectures at several important centres for those engaged in Banking and holds examinations. It is consulted by the Government on matters connected with British Banking. It moves the Parliament to make such changes in the laws as are necessary in the interests of Banks. Similarly, the American Banker's Association protects the interests of the bankers of the United States. It arranged lectures on banking and allied subjects at 83 centres in 1917 and had, the same year, some 22000 students on its roll. Such institutions should be introduced into India to make her the home of scientific banking organisations.

M. L. TANNAN.

THE EXCESS PROFITS TAX BILL.

There are two interrelated but distinct issues from which the public have criticised this bill and considerations of which will weigh much in the minds of the Hon. members of the Council in deciding their votes. The first is the purpose for which the money is to be collected and the second is the incidence of the tax which will generally fall on the capitalists. The mercantile members, Indian and European, will feel inclined to vote against the levy, the official members, in favour of it, while the rest will arrive at their decision after considering both issues.

The Council resolution of September last has sanctioned by a majority a large contribution for the military requirements of the Government of India in the circumstances as they existed at that stage of the war, though the public have since disapproved of it on the ground of India's poverty and needs. The Hon. the Finance member also put it as an additional test of India's loyalty, though it might be said that no further proofs of loyalty ought to have been expected by England after what India had done during the four years of the war by her direct and indirect contributions in men, money and materials. These last have been freely exploited for military purposes and the agricultural classes have materially suffered on account of the various controlling departments, particularly when they had no organization of their own to watch their common interests. Ireland's resources too have been similarly requisitioned and but for the vigilance of the Irish Agricultural Organization Society that had been fighting the battle of the Irish farmer through its members on various food committees, there would have been twenty glaring instances of unfair treatment in place of the stray ones regarding the prices allowed for pigs and potatoes. The British government in India has hitherto for a century and a half been carried on, on business principles and for the various economic benefits that India has received, India has paid. Englishmen and English capital have been always fully remunerated for the work they have done. It is therefore unfair to appeal to the sentiment of loyalty in season and out of season. The Finance member has freely acknowledged the money contributions of the princes and the peoples of India in his speech proposing the aforesaid resolution. Since September the war aspect has materially changed and a substantial victory has practically closed it immediately thereafter. The Government of India have, in a letter to the Bombay Chamber of commerce, also announced that instead of the 14.7 million sterling originally expected by Sir William Meyer as the necessary contribution for 1919-20, only £ 8 million will be required and that about half the amount will be met by the expansion of revenue on the existing basis of taxation. Again it is argued by the mercantile capitalists that conscription of a large portion of the income in the shape of an excess profits tax will adversely affect the future industrial development of the country.

These considerations coupled with an eye solely directed to the interests of the capitalist class would weigh much in doing away with the proposal of the tax or whittling it down to an insignificant

percentage. An alteration may be suggested by way of doubling the ordinary income tax on trade incomes exceeding Rs. 5 or 10 thousand or trebling it on such incomes above Rs. 15 or 25 thousand. An alteration is suggested by way of another war loan but it seems to have been almost definitely rejected so long as the so-called free gift of £ 100 million from the Indian people but really the gift made by the Government of India to Great Britain with the *ex post facto* assent of the Indian Legislative Council, has not been fully subscribed to. The resources of the country have already been mortagaged for a whole generation, the general tax-payer is already affected heavily and a further loan therefore is out of the question. But the question is how far the further economic development of the country would suffer by the Excess Profits Tax. It is stated that the Goverment here too is going to initiate, as in other countries in Europe, a new policy for industrial development. This also will require some money. Is the money obtained from abnormally huge profits brought about by the war situation to be left in the hands of private capitalists for the same industrial development? The Government have before them a large programme of reconstruction, political, industrial, educational and sanitary. All these reforms have been largely retarded for want of funds in the past. The Indian Government may claim and England would pay the additional war expenditure now sought to be thrown on this poor country but even then it is absolutely necessary that the economic development of the country in the nearest future does require large sums of money that can easily be obtained by the excess profits tax. The tax will generally fall on those who are able to pay it and will come out of profits which are a windfall to them as being not the result of any efforts on their part. In making their investment even in joint-stock companies people never expected to earn anything more than a fair rate of interest, say, from 6 to 10 per cent. The investors have no right to expect large dividends and even the present purchasers who do business in joint-stock shares must calculate that the abnormal profits are not to last beyond the war. Some speculators may suffer but they will always suffer because of their gambling spirit and they are to thank themselves for their losses. Judging the bill from this view the democratic members of the Council will feel inclined to vote in favour of it but they could do so only on a budgetary programme. Fortunately the budget will be discussed in the same session and they will be able to see that substantial allotments of revenue are made for the growth of education, industrial research and general economic development of the country.

It is sometimes argued the war has ended and thereafter the military requirements are over. But it is fallacious to base such a levy on military requirements alone if the country otherwise wants it. Such a tax was first suggested in Denmark and Sweden. It was levied there in May 1915. Holland, Spain and Switzerland have also levied it. And all these are countries that have never joined the war and still shared the general windfall of profits with their subjects. All the belligerent countries have levied such a tax. Why should India not raise one if she wants the fund for her advancement?

After so far dealing with the principle of the excess profits tax, a few comments may be made on the detailed provisions of the Bill. Clause 4 provides for the rate of 50% of the excess profits and for exempting incomes below Rs. 30,000. For the present military requirements only the rate is too high. The limit of exemption is also very high. In England it was £ 300 and in America 6,000 dollars. Under Facts and Statistics are given tables containing figures of taxes on income compiled from available statistics of British India. A study of them will enable one to judge as to the rate and the limit of exemption, as also any alterations by way of an increase in the present rates of income tax. Up-to-date statistics for the whole country are not available perhaps on account of pressure of work in the Government Departments. But when Government wanted so much money, they should have spent a little extra on the compilation of income tax statistics up-to-date.

Clause 6 provides for standard profits as being the average of the assessed profits in the years 1913, 1914, 1916, and 1917. The term assessed profits is rather vague. Does it mean the actual or conjectural amount of profits on which the income tax may have been paid in those years? The income conjectured by the Collector in those years may have been rarely more but generally less than the actual income. The four years for the purposes of the average is not only a longer period than in any other country but in no country have war years been taken into consideration. These war years seem to have been introduced at the pressure of the jute merchants of Calcutta who are also concerned in the other joint-stock enterprises in Bengal. The department of statistics have published in the Indian Trade Journal of January 24th 1919 the following figures of Bengal Jute Mill Companies which will speak for themselves;—

Profits of Bengal Jute Mill Companies.

Year.	Number of Cos. whose accounts were closed during each half year.	Profits before deduction of interest on debentures.	Interest on debentures.	Net profits (subject to depreciation).	Ratio of net profits (Col. 5) to total paid up capital.
1	2	3	4	5	6
		Rs. (1000)	Rs. (1000)	Rs. (1000)	
1914 First half (pre-war).	31	64,90	9,94	54,96	10
1914 Second half ...	38	82,45	13,96	68,49	
1915 First half ...	31	1,70,45	10,07	1,60,38	58
1915 Second half ...	38	5,52,60	13,74	5,38,86	
1916 First half ...	32	3,94,99	10,25	3,84,74	75
1916 Second half ...	39	5,51,39	12,88	5,38,51	
1917 First half ...	34	2,66,78	9,59	2,57,19	49
1917 Second half ...	40	4,00,35	11,74	3,88,61	
1918 First half ...	36	7,28,00	9,50	7,18,50	73*

Compare with this the average price of raw jute in the following per bale of 400 lbs. :—

	Rs.	a.	p.	
1913–14 ...	76	12	0	
1914–15 ...	54	8	0	
1915–16 ...	48	4	0	From August 1916 under the Government scheme of buying jute through the European traders of Calcutta.
1916–17 ...	53	10	8	
1917–18 ...				

Again, almost all the firms who are Agents of these Jute Companies and the Tea and Coffee Plantations are in the hands of

* This ratio has been calculated on the profits of only the first half of 1918.

European Traders who are also interested in the other trades of Bengal and Madras. Except in the Bombay Presidency where the proportion of European and Indian agencies is one to four, by far the greater majority of joint stock companies in India are in European hands.

10% should be allowed as the minimum of standard profits if the average happens to be less than 10%.

Clause 8 leaves very wide discretionary powers in the hands of the Collector without any definite instructions and without any experience regarding this new method. One of the three members of the Board of Referees referred to in clause 9, sub-clause 3, must be a lawyer. A reference to the High Court on questions of law from the decision of the Chief Revenue Authority ought to be allowed particularly when the Bill is so clumsy in its machinery. A substituted increase in the income tax on higher trade incomes will obviate all this trouble.

Clause 10 is unnecessary as the Income tax Collector must have called for the returns of income for 1918-19 for the purpose of income tax.

In schedule I sub-clause 4 businesses liable to excess profits tax in England are exempt in India. This is unfair to this country. It is an indirect contribution to the British Revenue. If the business is carried on in India, the tax must be paid here and will be allowed for in England as a business expense. In schedule II clause I (c) accumulated profits of previous years though used as capital are not to be treated as such. This is certainly unfair. It is the added capital of the concern if it uses its reserve funds or accumulated profits as further capital investment in the concern when the same does contribute to the expansion of business.

In England Companies are exempt from the payent of super-tax. In India it is not so as the excess profits tax could not be levied earlier for want of the proper machinery. Now that the companies are to pay an excess profit tax they should be exempted from the payment of a super-tax on their undistributed profits. The principle of a super-tax is based on the faculty theory of a graduated levy and should apply to individuals only. The Government have accepted this principle since the publication of the Bill. The excess profits are a windfall and therefore graduation is not advocated by economists. Individuals as well as companies get a windfall as the result of war for which the country directly or indirectly has to pay.

MANEKLAL H. VAKIL.

ECONOMIC THOUGHT IN INDIA.

(AN HISTORICAL SUMMARY AND CRITICAL EXAMINATION OF THE INDIAN POINT OF VIEW IN ECONOMICS.)

Preliminary—Scope and Method.

That Economics is a universal science is an exploded belief and that is our *raison d'etre* for the Indian point of view in Economics. It has been doubted whether Economics can be strictly called a science at all. However that may be, the Indian point of view in Economics at any rate has, hitherto, been more of an art than of a science.*

But it does not follow, therefore, that we can rest content with a mere mass of economic facts relating to India. Economic facts, however valuable they may be, are not the same as Economics whether it be an art or science. Moreover, though economic facts are the basis on which the structure of Economics rests, a work on Economics has necessarily to leave out a vast amount of economic facts.

The persons first to feel that the general economic theories as they knew them, were not as a whole applicable to India, were some of the officials of the Indian Government carrying on the administration of this country. Taught by that stern teacher—experience, they began to realise, though not fully, the meaning of the peculiar conditions with which they were confronted. This can be seen from the official literature—from the minutes of the highest officials like the Governors-General or Provincial Governors as well as from the reports of humble district officers. Whatever may be the intrinsic merits of such literature, no economic doctrines can be said to have sprung out of it directly, nor can the formation of, or alterations in, the opinions held by Indians be directly traced to it. We shall, therefore, exclude from our purview the early official literature, except when incidental references have to be made to it for the purpose of explaining matters falling within the range of this essay.

Later, we come across a few persons—some among them Anglo-Indians and others, Indians who had, through English education, become conscious of the political life of their country—persons who dissatisfied with the economic conditions around them, made enquiries

* S. V. Kelkar's "An Essay on Indian Economics", P. 8.

and published the results thereof. Although these results may, in the light of the knowledge that we possess now, seem to us imperfect and unreliable, it is a fact that opinions based upon them exercised a powerful influence at least on two generations of educated Indians. Some of these opinions acquired very nearly the status and celebrity of doctrines, and have not spent all their force even now. In these enquiries and opinions, then, we perceive the birth and beginning of the Indian point of view in Economics which has gone on developing, but has, probably, not outgrown its infancy still.

In the course of this brief survey, we shall not be able to take special notice of men like Rao Bahadur G. V. Joshi*, or G. Subramania Iyer†, because their reputations were Provincial rather than All-Indian; nor shall we be able to take such notice even of men like G. K. Gokhale‡ who, on account of their position or free will, were concerned more with criticism on policies and methods of the administration than with the formation or advancement of the economic thought in the country.

The method that we shall follow, is a compromise between the two courses often followed viz. the statement and discussion of doctrines in their chronological order, or the consideration, one by one, of persons who have wielded great influence in the sphere of Economics, ascertaining the extent of their influence and the amount of truth in the views propounded or supported by them. We cannot follow the first course, because, if we confine ourselves to doctrines, much that deserves careful notice, would be left unnarrated. For, though we had some doctrines in the beginning, we have scarcely any now. There are at present no such settled opinions held by a very large section of the people, as may properly be termed doctrines, but even if we have any such opinions, they are in the melting pot, and we are not sure whether they will come out of it in their original form. The other course is not the proper one for us, because, though there were, in the earlier period, some persons who held the field of Indian economic questions, we cannot point out any such persons now.

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* "whose knowledge of administrative and economic problems was almost unsurpassed by any Indian." Kale—"Gokhale & Economic Reforms." p. 54.

† who wrote a book "Some Economic Aspects of British Rule in India".

‡ who was undoubtedly, one of the greatest, if not the greatest student of Indian economic problems.

The compromise will enable us to deal with a few doctrines, and a few persons separately as also to undertake the work of showing how the Indian point of view affected some of the most important questions of Economics. In short, it will enable us to see things in their true perspective, and to have a connected general idea. One consideration viz. that of enabling the reader perfectly to understand every chapter without waiting for the chapters to follow, has been deemed to be of paramount importance, and if, for the sake of this consideration, symmetry is found sometimes to have been sacrificed, the reader will, it is hoped, be a little indulgent.

I.

The beginning: the Era of the three D's. The old school.

It is not at all possible to determine a particular point of time when the Indian point of view in Economics arose. In India, however, Economics has, from the beginning, allied itself with politics, and for practical purposes, therefore, we may roughly associate the birth of the Indian point of view in Economics with the commencement of Dadabhai's political work, i. e. about the year 1866 when, so far as we know, Dadabhai's first speech was delivered.

Dadabhai is, as we all know, the father of the political movement in this country. He handled economic subjects also, and tried to present to Government, what he thought to be the Indian point of view in those subjects.

No book dealing with economic subjects as such has been written by Dadabhai. We have to pick out his views on different economic subjects from the two books* that are available to us and which are collections of his speeches and writings, the latter mainly consisting of his correspondence with officials, statements submitted to commissions and committees, and a few articles in magazines. A number of economic topics have been discussed in these books e. g. the Poverty of India, the Drain, High Prices, and Currency. But what is prominent throughout the books, is Dadabhai's strenuous efforts to prove the abject poverty of India, and to show that it was the result of the politico-economic drain from the country. Even if it were not a fact that his writings at one time constituted the main portion of our economic literature, Dadabhai would have been specially referred to for another

* "Poverty and Un-British Rule in India", and "Speeches and writings".

reason. Though he was not the first person to use the word "Drain" for the payments that India had to make abroad, it was he who made the word familiar to Indians and to those Englishmen who cared to know anything about India—so much so that the "Drain" has been aptly considered to have attained the status of a theory.

Another pioneer in the Economics of India is Digby. He had worked in India for a number of years as a Government official. He had opportunities of coming in direct contact with rural India. His chief work* "Prosperous British India" was published as a reply to one of the speechs of Lord George Hamilton, then, the Secretary of State for India. It was meant to prove beyond doubt that India had retrograded in material prosperity under British rule. Here also, as in Dadabhai's books, very strenuous efforts are made to prove the poverty of India and also to prove that the "Drain" which was the result of British rule in India, was the main cause of that poverty.

Dutt Romesh Chunder is the third D'. He also had worked as a district officer for a number of years, and had opportunities of acquiring first hand knowledge about the condition of the village-population of this country. He was a profuse and all-round writer. His contribution to the Economics of India consists of three books.† He was a believer in the "Drain" theory, but we know him, not as a supporter of that theory only, but as the person who made another view familiar to those taking interest in Indian economic questions. He asserted that there was extreme poverty in the land, that the poverty was visible in the increasing number and intensity of famines, and that it was due to the over-assessment of land-revenue by the Government and the uncertainty engendered through tenures other than the Permanent Settlement. He also pointed out how Indian industries and manufacturers declined in the last decades of the eighteenth and and the first decades of the nineteenth century leaving agricultnre as virtually the only source of national wealth in India. "Manufactures crippled, agriculture overtaxed, a third of the revenue remitted out of the country"—poverty and famines follow necessarily—was Dutt's final summing up. These books–especially the economic Histories–being almost the only works of their kind in our economic literature, were widely read, and his opinions readily received. As a consequence,

* The minor works being "India for the Indians and for England," "The condition of the Indian people in 1901" &c.

† "Open Letters to Lord Curzon on Famines and Land assessment in India", "India in the Victorian Age," and "India under the Early British Rule."

his opinions wielded, at one time, an influence in the economic sphere, which was hardly inferior to that wielded by the opinions of Dadabhai.

Dadabhai—the "Grand Old Man of India"—is revered by the whole of India on account of the great energy and single-minded enthusiasm with which he devoted himself to his country's cause. He had to do much up-hill work. His was the tongue which spoke when few others' could speak; his was the hand that worked when few others' did. William Digby was one of those few Anglo-Indians whose hearts burned for the welfare and progress of India. He pleaded the cause of India on the grounds of the true interests of England as well as of justice to this Dependency of the British Empire. In an age when the distance in all spheres, between the rulers and the ruled, was much greater than what it is now, Digby justly attracted the attention and commanded the respect of the Indian educated world. Dutt was well-known in the literary as well as in the political world. He combined high scholarship with the ripe and varied experience of a district officer. He lived laborious days even in the evening of his life when most men think of rest and ease. He was one of the most prominent men of his generation, and was universally respected in India for his ceaseless and selfless work in the cause of his country.

But we have to judge Dadabhai, Digby, and Dutt solely from their views on Indian economic questions, and from that standpoint it seems clear that students of later generations will look upon their contemporary reputations as unjustifiably high. The merit in Economics, as in most other matters, consists in seeing things exactly as they are, and though there may be circumstances tending to distort one's sight, that test does, all the same, remain the supreme test. At the most, we may make some allowance for the circumstances if they were unavoidable. They tried to trace the misery of the Indian people mainly to a single cause, and like all those who try to do so in the case of a large community, Dadabhai, Digby, and Dutt have failed. They have done service to the country, but their views will not be acceptable to future generations.

Dadabhai, Digby, and Dutt have been grouped together for two reasons. The first reason is their tendency to pitch upon one single thing as the cause of most evils. The second reason is that they represent very well, the old school whose existence extended over a pretty long period—about forty years. Within these three is included

the earliest exponent of the old school as also its latest and strongest exponent; and Digby might be taken to represent the few Anglo-Indians who belonged to the old school.

Most of the criticism of the old school was negative, and to a certain extent irresponsible. This may partly be due to the entire impotence of Indian opinion on account of the absence of representation or any other arrangement assigning to Indians a share in the governance of their country as also to the fact that their knowledge was one-sided, and otherwise limited and superficial.

A part of Ingram's description of the nature of the literature of the Mercantile School, exactly applies to the literature of our old school: "We must not expect from the writers of this stage any exposition of political economy as a whole; the publications which appeared were for the most part evoked by special exigencies, and related to particular questions.....They were in fact of the nature of counsels to the Governments of States"*

Lastly, it may be noted that most of the books of the old school mentioned by us, appeared about the end of the nineteenth century. But these books represent the views held and expressed by the writers of the old school during many years preceding their publication. Like lamps which burn brightest before they go out, the old school showed the greatest activity before its final fall.

II.

The "Drain" and "Poverty" (In the old light).

We have already remarked that Dadabhai was not the first person to make use of the word "Drain" in the sense in which it has for so long been familiar to us. The word had been used in that sense, in the past, by some Englishmen the majority of whom were Government officials. We find that in the year 1838, Mr. Martin Montgommery employed the word to convey the same sense.§ The word had no definite meaning, nor was any attempt made till recently, to give it such a meaning. Though writers sometimes took care to deduct some items e. g. profits of commerce by foreigners, and even the interest on loans for railways,† from the total

* "A History of Political Economy" (1893) p. 42.

§ "Poverty and Un-British Rule in India" p. 266.

† Do. p. 33, where Dadabhai hesitatingly deducts the interest on railway loans.

amount of payments that India had to make to foreign countries, the general idea in the country was that all foreign payments were a drain.

The drain was looked upon with the greatest alarm. It was pointed out that India which was once rich, had grown poor because a large amount of wealth left the country every year, and that if the drain of wealth, continuous as it was, continued for long in the future, the country would be reduced to unimaginable poverty. The calculation was simple. If India lost twenty crores of rupees a year, to what a large sum would the loss amount within thirty or forty years? The principal would be equivalent to six or eight hundred crores. But what of interest? Adding interest to the principal, we arrive at a huge figure. Why! even England would be exhausted if she were deprived of such an amount of wealth. With calculations such as these, the prospects appeared–as they were bound to do–very gloomy. So the supreme duty of an Indian, it would naturally be concluded, was to save his country from such a drain. Almost all Indians of light and leading believed in the pernicious effects of the drain. Everywhere–in books and magazines, in weeklies and dailies–whenever occassions arose, the drain was dwelt upon. The idea filtered down even to the vernaculars* the literatures whereof were, in those days, very limited.

Remedies were proposed, but hardly any of them were feasible. As for instance, proposals were made that army expenditure should be reduced, or that a reduction should be made in the expenditure incurred for the "India Office" in England, or that England should share the burden of expenditure necessary for the maintenance of the "India Office" and the army, or that a larger number of Indians should be employed in the public service here. It is evident that the last only of the remedies proposed, could have, to any appreciable extent, been carried into effect in those days. But by how much would it curtail the drain? Of course, only by a comparatively very small amount. "For a disease so dangerous, so grave, so alarming, a remedy so poor, so inadequate, so nugatory?" one may well ask. The old school would answer the query either by silence or by repeating the same remedies. This is the principal drawback of the old school. It failed to perceive real practicable remedies for the diseases which, it

* As an instance may be mentioned "Hind and Britânia" written in the Gujarati language, published by the "Gujarati" office.

thought, it had diagnosed. Another defect was that it was prone to exaggeration. The old school was right in considering the drain as an evil. For an admittedly poor country like India, it was a serious affair if twenty or twenty-five crores of rupees annually left its shores, never to return. But what the old school failed to realise was the distinction between an individual and a country. The considerations that might be appropriate for the former, may not be so in the case of the latter.

Though there was a dispute* as to the effects of what was called the drain, there was no dispute at all about its existence. This, however, was not the case with the question of the poverty of India. The Government used to declare emphatically that India had advanced in material prosperity, while the old school used as emphatically to declare the exact reverse of it. Various estimates† were made on each side, and each side was also convinced of the correctness of its estimates. But here also what we have to note, is the insufficiency or the impracticability of the remedies suggested by the old school. The remedies were, as we have seen, reduction in the land-assessment or the stoppage of the drain. Granting that the land was over-assessed, and that a reduction in the assessment was possible, the remedy was very insufficient, and the stoppage of most of the drain was, as mentioned heretofore, impracticable. The poverty was, moreover, exaggerated. In the abstract, no sane person who knows India doubts that she is very poor. But to demonstrate the poverty by instituting comparisons‡ with England, the United States of America, France, Germany or Australia, is really absurd. They are countries that widely differ from India. Moreover, the comparative opulence of those countries is more an indication of the vast strides that they have taken in their industrial and even agricultural development than that of the retrogression in the material condition of India.

Some of the faults of the old school, were the result of circumstances e. g. its tendency to exaggerate was partly due to a similar tend-

* Practically between the Government and our old school.

† Dadabhai's estimate about 1870, was about 40s or Rs. 20 per head. See "Poverty and Un-British Rule in India" p. 25. Digby's estimate in 1901 was about 20s or Rs. 15 per head. See his "Prosperous British India" p. 615.

Lord Curzon's estimate in 1900 was 40s. or about Rs 30 per head.

Atkinson's estimate later than Lord Curzon's and more elaborate, gives Rs 39.

‡e. g. See G. V. Joshi's "Speeches and Writings" p. 758.

ency on the part of Government officials* The fact, however, remains that the old school did not perceive things sufficiently, and that what it actually perceived, it perceived in false colurs. In other words the old light was dim, and through causes difficult to avoid, it was also coloured. What new light has revealed to us, will be determined in another chapter later on.

III.

The Herald of the New Light.

Light was still dim and coloured and the vision of most persons continued to be distorted. To an onlooker, things did not promise to improve fast, though a little change for the better was, sometimes, visible§ here and there. The new light may properly be said to have been heralded by the late Mr. Justice Ranade, the *Guru* of the first set of young patriots of Western India who devoted themselves, according to their opportunities, to a serious study of Indian economic problems.

Mahadev Govind Ranade is entitled to our special attention mainly for two reasons: firstly, because he discarded the old line of thought and emphasised the fact that our plans ought always to be constructive, and secondly—this is a more important reason for our purposes—because he insisted upon the necessity of a Political Economy which took notice of Indian economic conditions instead of the conditions of the West. It is unfortunate that his views on Economics are not available to us in the form of any systematic and fairly comprehensive book. But the little that he has left to us in his stray speeches and writings† on economic subjects, is of a high value.

It is a pleasing coincidence that Ranade's first speech‡ dealing with Economics was delivered as an addresss inaugurating the Industrial

* Government apologists had generally before their minds the period of transition from Native Rule to East India Company's Rule—the chaos, the absence of roads and communications and security, the high assessments on paper and lack of trade. With this period they compared the period of English Rule, and came to the inevitable conclusion that the lot of the average Indian had improved a good deal.

§ *e. g.* see Raja Sir T. Madhav Rao's speech as Chairman of the Reception Committee of the Third Indian National Congress.

† A collection of these speeches and writings has been published under the title of "Essays on Indian Economics".

‡ Delivered in 1890, "Essays on Indian Economics" p. 189. All the quotations in this chapter are from that speech.

Conference, Poona, which was a beginning, though small, of constructive work, and an indirect recognition of the special sphere which Economics was entitled to occupy, apart from politics. Pleasing indeed it must always be to see the first economic engineer, working at and introducing to the public, the first piece of constructive work intended to serve as an instrument for further construction. The speech is marked by deep insight, frankness, and a bold departure from the line of thought that prevailed in those days. He first touches upon the poverty of Indians and their helplessness in times of scarcity. "Many millions among us scarcely earn a couple of annas a day, and many millious more are underfed, and live on the borderland of Famine and slow death, into which the failure of a single monsoon precipitates them". This was a matter of common knowledge. But what was not a matter of common knowledge just follows. A notion prevailed then (and even now it prevails to a certain extent) that the condition described above, was brought about solely by foreign conquest and foreign competition. Ranade admits the evil effects of both of them, but with considerable limitations. "Of course", he says, "this condition of things is not of yesterday, and is not the result solely of Foreign Conquest and Competition. It is an old, a very old Inheritance." But a question might arise as to why we do not find the matter emphasised in our previous history. To this he replies "If we feel it more keenly now, we feel it because we are being roused from the sleep of Ages, and our eyes have learnt to see, and our ears have learnt to hear."

Next, he proceeds to another subject viz. the condition of industry and commerce. Much of the industry had already passed out of the hands of Indians, and he said "The Industry and Commerce of our country, such as it was, is passing out of our hands, and except in the large Presidency Towns, the country is fed, clothed, warmed, washed, lighted, helped and comforted generally, by a thousand Arts and Industries in the manipulation of which its sons have every day, a decreasing share." Here also there was not much that was new to his hearers. But when he comes to the causes of the destruction of Indian industry and commerce, he has to say something which must have been a revelation to most of those who heard him. The old school of thought was never tired of repeating that India was once famous in the whole world for her industries and that her manufactures were once exported to European countries. But the East India Company came here, and purposely and ruthlessly destroyed

these thriving industries by using the hand of "political injustice."* Ranade realised that although this may have been true at one time, the Company was not the real cause of the permanent destruction or depression of Indian industries. Even if the East India Company had not done what it did, our industries were bound to give way before the stress of the change brought about by the Industrial Revolution in the West. Ranade lays his finger on the right point when he declares that "Foreign competition—not because it is Foreign, but because it is the competition of Nature's powers against Man's Labour, it is the competition of organized skill and science against Ignorance and Idleness—is transferring the monopoly not only of wealth, but what is more important, of skill, talent and activity to others."

Referring to the "Drain," Ranade admits its existence, and the undesirability of a portion of it. But he looks at it from a standpoint which was altogether different from that of his contemporaries, but which has been recognised as reasonable by thinking persons now. He considers the pursuit of the question of tribute as fruitless.§

As to the methods of bringing about the economic regeneration, Ranade admits that the Government of India does not, and could not, from the nature of the doctrine which England professed, do for Indian industries what France and Germany had done for theirs. But he considered the factor of such Government help as subordinate to many others. He preached—and it was rare preaching in those days—the necessity of earnest and persevering efforts on the part of the people themselves. "We have", he asserted, "to work with a will, to pull long, pull all, and to pull till we succeed". He ended his address by a piece of advice to his audience. "What we have chiefly to avoid," he affirmed, "is the pursuit of impracticable objects".

So far as his opportunities allowed of it, he disavowed, and often in clear terms, the teachings of his predecessors and contemporaries. Indeed, the new era was to take long to come, but, at last the voice was heard of a man who had seen the economic position of India in a truer light. Their minds having for long fed on old economic thought, most persons failed to realise fully the significance of what Ranade told them. As a consequence, the views of Ranade were not truly appreciated until very recently i. e. until the new

* From W. W. Hunter's oft-quoted passage.

§ His views on the drain, we shall know at greater length, in the separate chapter on "Drain" that will follow.

light had dawned on many more persons who could, therefore, see things as Ranade saw them.

IV.

A case for the Indian Point of View in Economics made out.

Though the idea seems to have been long in the air that conditions in India differed very much from those in the West, and that what was good for a nation or nations of the West, was not necessarily so in the case of India, it was Ranade who imparted a shape to that floating mass* · He read his paper on Indian Political Economy (which we, for our present purposes, take to be the same as the Indian point of view in Economics) in 1892, before the students of the Deccan College.

He sets out by reviewing shortly the history of economic thought in Europe. He deprecates the absoluteness attributed to Political Economy by the Orthodox School, and adds that there can be no such Political Economy as would be universal in its application. He refers to those who seek to get over the difficulty of absoluteness by differentiating the Science from what they are disposed to call the Art of Political Economy. "This Divorce of Theory and Practice is, however," says he, "a mischievous error, which relegates the Science to the sterility of an ideal dream or a puzzle and condemns the Art to the position of a rule of thumb." Then he proceeds to explain that the whole of the Political Economy as it was taught in Indian Colleges, was the result of the experience of the West only, and was not based, and could not have been based, upon a comprehensive view of the conditions of all the countries of the world. The Indian economic conditions were vastly different from, and in some cases exactly the opposite of, Western economic conditions. The Political Economy ought, therefore, to be reconstructed before it could be properly applied to India. The reconstruction should proceed with due regard to the conditions prevailing in India, and on these conditions he dwells at great length :—

"The characteristics of our Social Life are the prevalence of Status over Contract, of Combination over Competetion. Our habits of mind are conservative to a fault. The aptitudes of climate and soil facilitate the production of raw materials. Labour is cheap and plentiful, but unsteady, unthrifty, and unskilled. Capital is scarce, immobile and unenterprizing. Co-operation on a large scale of either Capital or Labour is unknown. Agriculture is the

* This will be evident from that portion of the writings or speeches of Dadabhai which deals with the standard of living, high prices in India, free trade &c. See also G.V. Joshi's "Writings and Speeches" p. 688 where Railway policy in India is discussed.

chief support of nearly the whole population, and this agriculture is carried on under conditions of uncertain rainfall. Commerce and Manufactures on a large scale are but recent importations, and all industry is carried on, on the system of petty farming, retail dealing, and job working by poor people on borrowed capital. There is an almost complete absence of a landed gentry or a wealthy middle class. The land is a monopoly of the State. The desire for accumulation is very weak, peace and security having been unknown over large areas for any length of time till within the last century. Our Laws and Institutions favour a low standard of life, and encourage sub-division and not concentration of wealth. The religious ideals of life condemn the ardent pursuit of wealth as a mistake to be avoided as far as possible.....Stagnation and dependence, depression and poverty, these are written in broad characters on the face of the land and its people."

The quotation is sufficiently long—perhaps too long; but necessity is its justification.

The statement, so far as it went, was a faithful representation of the various aspects of Indian economic life. It may be observed that there have been considerable changes* in those aspects, since the statement was made. But the changes do not diminish the need of a Political Economy dealing specially with India i. e. those changes do not diminish the need of "The Indian Point of View in Economics".

The paper was mainly based, as all such writings may be expected to be based, on the German economist List and the American statesman Hamilton. It is of unique importance in the early economic literature of India, and although more than 25 years have passed by, they have only confirmed the force of Ranade's main contention. A few more writings† of the kind have since been added, but the paper—the address to the students of the Deccan College—remains unsurpassed from the point of view of clearness and force of expression. A few new arguments have indeed been evinced in favour of the case which Ranade supported, but the additional arguments are not absolutely essential for the making out of such a case.

(To be continued).

D. A. SHAH.

* e. g. Labour can no longer be considered to be either quite cheap or plentiful, nor can capital be said to be altogether scarce, immobile or unenterprizing, now.

† *e. g.* Radha Kumud Mukerjee's "Introduction to Indian Economics," and Kale's "National Economics and India" in his "Indian Industrial and Economic Problems."

NOTES ON CURRENT TOPICS.

Economic Conference.

An Economic Conference was held at Bombay on 30th and 31st of December 1918 and 1st of January 1919. The invitations were signed by the Local Secretary, Principal Percy Anstey, who also presided at the Conference. Excepting College students over two dozen people from different parts of India attended the Conference. Even from Bombay very few people were present.

Several papers were read on which interesting discussions took place. The very first paper was by Prof. V. G. Kale on "A study in Village Economics". The title is rather misleading. The burden of the paper was that there should be cö-operation between economists and Government officials who are charged with the duty of carrying on periodical inquiries into the condition of the rural population. Dr. Mann read a very stimulating paper on "First Investigations into the Efficiency of Agricultural Labour in Western India". The investigations are not complete so as to warrant any conclusions. The data for establishing relation between cost and labour are wanting. It is the productive and not absolute efficiency that matters. Mr. Ewbank's paper on "The Cooperative Movement and the Present Famine" is a faithful representation of the difficulty and possible achievement of the movement in such emergencies. Prof. Thomson's paper on "Modern Mercantilism in India" evoked a good deal of praise. Prof. Thomson has bestowed industry and thought on his subject and his comparison of the mercantilist ideas with present-day economic notions in India is striking. Though the Professor's object was only to institute a comparison without a comment, still the under current of subtle sarcasm defeated his object and supplied a comment. It is very difficult to write on current topics without betraying leaning to or advocacy of a particular set of views. Prof. Stanley Jevons of Allahabad in his paper on "Finance of Economic Development" urged that what was needed in India was a bold programme of economic development arranged on a huge scale. He suggested that men, money and machines must be massed and marshalled to the task of production. The learned Professor is of opinion that the vast sums of Indian money, about 100 million pounds, invested in London must now be brought back and utilised for financing commerce, industry and permanent works of economic

development. He is also in favour of provincial borrowing for these purposes. The learned address of Rao Bahadur Prof. K. V. Ranagaswami Aiyangar on "Fuel Economy with special reference to Southern India" was full of facts and masterly details. The lecturer pointed out how the fuel problem, if not attended to early, will be a source of anxiety to the country. There was no paper offered on any burning question of the day.

The discussions that followed were not always illuminating. Sometimes the main point was missed and a very minor point was attacked. In the solution of practical problems, very impractical suggestions were seriously made. This would, we hope, improve in course of time.

The most important business of the session was the formal launching of the Indian Economic Association. The constitution of the Association was framed and adopted at a meeting of members and a Managing Committee of representative men has been appointed. If the Association helps the solution of economic problems by offering considered views in the interests of the country, it will have sufficiently justified its existence. We wish good luck to it.

* * * * * *

Suspension and Remission of Land-Revenue.

Whenever there is a bad year the question of suspension and remission of land-revenue becomes very acute. This year about the whole of the Bombay Presidency has been affected by the failure of crops. Even areas which have never known what famine is for hundreds of years have suffered. The poor unsophisticated raiyat feels that in a calamity of this type some assistance from Government by a way partial remission should be obtainable. To this the Government reply is that ordinarily, the revenue is calculated at rates which are fair for the average of years, good and bad taken together; so that if one crop fails outright, but the next is good, the raiyat ought to be sufficiently relieved by the suspension of the demand for the instalment of one crop, payment being demanded only on the occurrence of the second of two successive good harvests. This is fallacious. Life is not arranged on the principle of averages. Cost of life varies as the prevailing prices of necessaries. In lean years the prices go up and the poor raiyat has to run into debt for keeping his body and soul together. So even if the next crop is good he is not in a position to pay off the debt

incurred in the previous year. In normal years he is not able to save and the debt once incurred becomes a permanent factor of his life. This means that suspension of land-revenue is no sufficient relief even though there is a succession of good years. Sympathetic consideration of this question is urgently necessary.

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Indian Industrial Conference.

The fourteenth session of the Indian Industrial Conference was held at Delhi on 30th December 1918. As usual it did not attract much attention in the din of the Congress. The Presidential address of Mr. J. B. Petit was rightly taken up with the "dissection and careful examination" of the report of the Industrial Commission. Mr. Petit thinks that the report indicates a welcome change in the hitherto apathetic attitude of the Government towards the Industrial needs of the country and the definite adoption of a policy of state participation in Industrial development. The constructive proposals made in the report are the introduction of a system of technical education in practical relation to industrial requirements, the supply of advice and assistance through organised scientific and technical services and the provision of more liberal finance for industries, so far as possible through private agency. Mr. Petit approves of the creation (*a*) of Imperial and Provincial Departments of Industries, and (*b*) of two new services viz. the Imperial Industrial and the Imperial Chemical.

Mr. Petit does not agree with the method of recruitment of these services proposed by the Commissioners. That the Commissioners should seriously propose to recruit raw graduates from English universities is a sad commentary on their earnestness. India has suffered heavily from the present system of recruiting the civil services. Most of the men who have ripened in high administrative posts leave the country just when their experience and judgement would be most valuable in maturing public opinion. If the Industrial and Chemical Services to be newly created are also recruited on the some mistaken principle then good-bye to all real progress. The system should be opposed tooth and nail.

Mr. Petit notices the omission of the two questions *viz.*, (1) the question of Industrial Banks and (2) the question of tariffs, as grave on the part of the Commission. His opposition to the Excess Profits Tax is not placed on proper grounds. The interest of the general taxpayer can not be neglected.

The Conference has appointed a Committee to consider the report of the Industrial Commission and also to deliberate and finally to decide upon the lines on which the Conference should work in future. We hope that the Committee will go through their labours before the next session.

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The Bombay Central Co-operative Institute.

The inauguration of the Bombay Central Co-operative Institute in October last, marks an epoch in the history of the co-operative movement in this Presidency. In view of the progress of the movement in this Presidency, the Institute is not a day too early.

The first General Meeting of the Institute was held on October 2, 1918, at which it was stated that the Institute had secured over three hundred members of whom 200 were co-operative societies. The Bylaws printed in the Prospectus were then adopted with some modifications. Bylaw No. 15 which laid down that "The President of the Institute shall be His Excellency the Governor of Bombay" was felt to be not quite in consonance with the character of the Institute which was mainly to become the centre of non-offcial effort. So also the object of the Institute mentioned in Bylaw No. 2 *viz*–the development of the co-operative movement in *India*, seemed to some, to be too wide. It was rather strange that the Institute calling itself the *Bombay* Central Institute should have as its objects the development of the Co-operative movement in *India*.

The Board of Management have appointed six committees to carry on work in different directions. The Committees are now gradually maturing their plans.

The Institute is intended to be the centre of co-operative effort in the Bombay Presidency, and ought to prove an inspiration and guide to workers—great or small, young or old. Co-operation has a role to play which we trust will not be lost sight of by the Institute.

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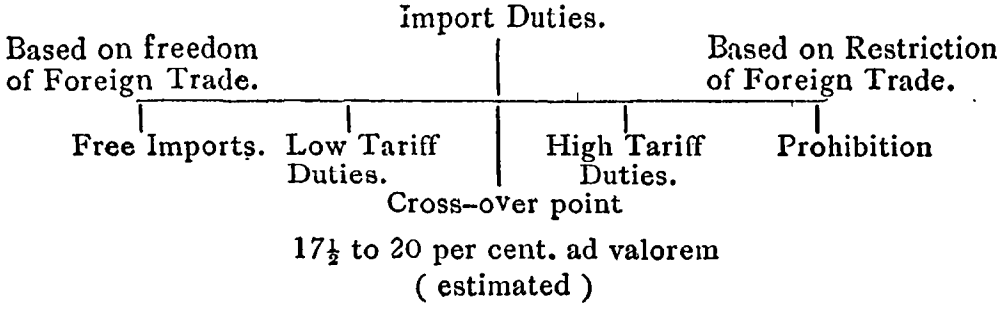
Theory of American Protection.

The Resolutions adopted at the then Allies' Economic Conference at Paris in June 1916 must undergo great modifications under the Press criticism in those countries and by the subsequent accretion of America to the Allies' cause. The Peace Conference is in sessions and the economic policy of the nations is an important item of post-war settlement. Under these circumstances it will be interesting for the public in this

country to know what the theory of American protection in economics is. It is very briefly described in J. Taylor Peddie's admirable book "A System of National Economics" published at the end of December 1916 by the London University Press. The writer is an advocate of Freedom of Trade based on a National System of Economics for each nation till the nations evolve a common international system of economics. He expects that his system can attain for Britain what Frederick List's has attained for Germany. The following is extracted from his book on the question of Free Trade and the theory of American Protection. The quotation is rather long but the instances cited leave a vivid impression of what protection can do for the benefit of not one country but of the consuming world. We are sure it is food for rumination.

Freedom of Trade (as distinguished from Free Trade which implies no import duties and is therefore not a thing of practical politics) involves an assumption of low duties for purposes of revenue to the state: while protection implies Restriction of Trade involving high import duties. The degree of low or high import duties is an adjustable item but the following chart indicates the proper classification :—



On no account should the percentage of duty ever be increased beyond 20 per cent. in a system of freedom of trade the reason being that this percentage covers the manufacturer's average profit. But in America where protection is considered a practical policy, high tariffs are levied where the local industry does require protection.

"As we have more than once asserted an import duty upon manufactured utilities is not paid for by the consumer; but the proposition applies to standardised utilities only and not to those which are not subject to repeat orders nor to food, food-products, or natural materials.

"In 1911 we prepared a comparative price list of various standardised machine tools and small tools which the *Morning Post* very kindly published, showing (1) the price of these instruments made in the United States locally; (2) the price in Great Britain of the same manufactures; (3) the price in the United States of the British-made productions, *plus* the duty which would have to be paid by the consumer in the United States who desired to have the British-made articles.

"The list shows that American manufacturers, in normal times are unable to take advantage of the high tariff duties to raise the price of standardised articles of utility against the home consumer. General competition, and the rate of discount prevailing on the money-market regulates the price at which these articles are sold. This proposition would apply to British manufactures as well as American.

"As we have previously indicated, large profits are the reward of enterprise, but so soon as an industry has proved itself, competition steps in, and profits are reduced in proportion to the extent of the competition and the rate of discount on the money-market. Thus, large production ensures low cost of production per unit of goods produced and, *ipso facto*, ensures cheapness in the selling price.

" Now as to the effect of Protection on Prices. There is the striking incident of Muscadine, the Pearl-button Metropolis on the Wisconsin River, created by the stroke of a pen in the McKinley Bill. Pearl shirt-buttons previously on the free list, had been all imported from Austria, but it was rumoured that the raw material—great beds of fresh-water mussels—had been discovered in the upper tributaries of the Mississippi. The result of a high tariff on shirt-buttons in the McKinley Bill of 1890 was to bring over to settle within the protected area a Viennese button manufacturer with a capital of £ 4000 and a few skilled hands. From this small beginning the turnover eighteen years later in the factories on the Wisconsin (1908) was 11,000,000, dollars and the price of shirt-buttons has fallen one-third. In the debate on the Wilson Bill in 1893 Mr. (now Senator) La Follette said:—

" In earthen and glass-ware the total importation last year was 18,420,634 dollars. This is practically all labour. Our people remember that before 1860 we imported all our pottery; that the duty was increased from 20 to 55 per cent; that American capital was interested and American labour employed; that by 1880 we were

manufacturing pottery in every State of the Union except one and that under the duty of 55 per cent. we reduced the price steadily year by year until the reduction was 40 per cent. below the price we had paid for crockery under the tariff for revenue.....Our people remember when all the wire rods from which fencing is manufactured were imported from Germany. We imported 150,000 tons a year at a cost of 60 dollars per ton. They remember that we greatly advanced the duty on these rods in the tariff of 1883; that now ten years later we are manufacturing nearly half a million tons of these rods and their price has fallen nearly one half. From this reduction in the price of the rods our fencing wire has fallen from 10 cents a pound to 4 cents."

" Or again take the case of tinplate. In 1873 tinplate was selling at 12 dollars per box of 108 lb. Until the McKinley Tariff of 1890 all tin was imported. Two years later with the high duty the entire United States production of tinplate was but 590 tons. In 1908 the production was 580,000 tons. What would today be the world's price of tin but for American production through Protection ? What, again, would be the world's price of bread if France, a producer of over 40,000,000 quarters of wheat because of her high tariff, were a customer for, instead of, a producer of, these 40,000,000 quarters ?

" Take again the case of Men's gloves. Gloves were on the free list in the McKinley Tariff of 1890. The Dinglay Tariff of 1897 imposed a heavy duty and this is the statement of Mr. Payne, the Chairman of the Committeee on Ways and Means, when under the new act of last year he demanded a similar duty on women's gloves also.

" Under the McKinley Tariff we were making 5 per cent. of our men's gloves ; to-day we are making 90 per cent. and men's gloves are much cheaper than they were when we put the duty on them.'

" Again take the instance of wire nails. In 1882 there were made in the United States just 50,000 kegs of wire nails. Their price at that time was 8¼ cents per lb. and the duty 1 cent. The McKinley Tariff of 1890 raised this duty to 4 cents. If the amount of the duty (4 cents) were added to the price (8¼ cents) wire nails should have risen to 12¼ cents, whereas in 1901 eleven years later the United States production of nails had risen from 50,000 kegs to 9,802,822 kegs. America is now an immence exporter and the price of the nails has fallen to 2½ cents per lb. or declares Senator Gallinger, to ' less

than one-third of what they cost us when we were dependent upon foreign countries.

"When I first visited America in 1878 steel rails were selling at 67 dollars per ton. A duty of 27 dollars was imposed and steel rails, now one year with another, sell for about the amount of duty.

"A very popular illusion prevails with regard to the establishment of new industries in particular localities. It is very commonly asserted for instance, that no community can manufacture cotton in competition with Manchester, as the latter district is favoured by nature with a peculiar form of moist atmosphere which gives to the cotton fabric a sort of superior finish; also that stout cannot be manufactured anywhere as well as in Dublin, because that locality is favoured by a peculiar natural water which gives a particular nip to the liquid; and that beer cannot be made anywhere as well as at Burton-on-Trent as the water there has peculiarities all its own; and that nowhere else can carbon-steel or high-speed steel be manufactured as well as those produced at Sheffield on account of the water of the river Don having a peculiar influence on the metals.

"Needless to say these are pure fallacies; the reason why other communities cannot manufacture the same commodities possessing the same qualities as those mentioned is that they do not possess the same particular experience, knowledge, and tradition, which virtues can only be acquired at the expense of custom and time. Money cannot acquire the experience and knowledge which the local labour has acquired; in addition to which there is a certain standard of proficiency in regard to the quality and finish of the production which prevails to which all the local labour subconsciously or consciously directs its energies. But such standards are not created by climate or any other natural conditions; they are created and acquired by the local communities through long training and habit.

"A very useful illustration is to be found in the case of the small arms industry. The home of this industry is in Birmingham; yet the Government have a small arms factory established at Enfield Lock near London. The cost of production of the small arms at the latter place is not as low as at Birmingham nor the quality as good simply because the traditional habits and standard of the proficiency prevailing in the locality is not so high.

"The only manner by which these difficulties can be overcome by those who contemplate starting a new industry which is foreign to a community is to obtain the best of the brains, experience and intelligence from the community possessing these the most, and to secure the most modern and up-to-date plant, embodying the latest practice, which brains, experience, and intelligence consider to be the best available for the purpose.

"*Any country or community can establish a new industry within its borders provided it is content to spend the money and the necessary time in acquiring it, and has a sufficiently large market in which the production can be consumed or distributed.* The popular illusion, therefore, that climatic conditions or nature has any influence on the successful development of a manufacturing industry is erroneous. The only direction in which nature or climatic conditions have any influence is in the growth or development of natural materials; some grow best in tropical zones, others in temperate zones; or again, nature and climatic conditions may have an effect on the energy and quality of labour : it is well known that white men work at their best in temperate zones.

"Beyond these instances, however, we know of no other direction in which production can be materially affected by nature or climatic conditions which men with enterprise experience and intelligence cannot overcome; and this is the general theory underlying American Protection."

VIEWS AND MEMORANDA.

SMALL HOLDINGS IN INDIA.

Dr. Ambedkar's article on "Small Holdings in India and their remedies" which appeared in the June and September numbers of the Journal of the Indian Economic Society makes an interesting reading—not so much because it throws any very great light on the subject, as because it arouses thought and is likely to stimulate discussion on one of the burning economic questions of the day. It is proposed here to examine the general contentious features of the article leaving out mis-statements that may have occurred in details.

Dr. Ambedkar has a great grievence against those who describe small holdings as uneconomic holdings, because they have not given us a precise and scientific definition of an economic holding. After discussing the definitions—or rather descriptions, for they were perhaps not meant to serve as definitions,—of the Baroda Committee, the Hon. Mr. Keatinge, and Prof. Jevons, Dr. Ambedkar says: "It is plain that these definitions including that of Prof. Jevons view an economic holding from the standpoint of consumption rather than of production", and after some argument, concludes that "Any definition, therefore, that leans on consumption mistakes the nature of an economic holding which is essentially an enterprise in production." Then the great law of proportion is revealed to the readers who are told that "it is the right or wrong proportion of other factors of production to a unit of land" that renders a holding economic or uneconomic. Then he dwells on want of capital which is one of the "other factors" and lays down that as the capital is inadequate, the holdings are uneconomic in the sense that they are too large. This proposition is as untrue as "it is in strange contrast with the main trend of opinion in this country".

Of the "other factors" which ought to be in proportion to the unit of land, the most important is the human factor. Though not stated in so many words, it is exactly because the proportion of the human factor to the unit or units (in the case of scattered holdings) of land is *wrong* that small holdings are termed uneconomic. It must be this disproportion existing between the human factor and a small holding that led the Baroda Committee to recommend that "Each of these new

plots must be of such a size as having regard to the local conditions of soil, tillage &c, to form an Economic Field, i. e., a parcel of land necessary to *keep fully engaged** and support one family".

When Dr. Ambedkar asserts that " though production is for the purpose of consumption, it is for the consumption only of those who help to produce ", he has, perhaps, concentrated his attention on the world of the "economic man" forgetting the world in which we actually live. If the mill-owner, the spinning master, or even the mill-hand—not to mention the administrator and the professor who are revengeful men,—were asked to continue to do his work so long as it pays for his own strictly individual needs, there can be little doubt that he would take it as the prattling of a child; and yet that is what Dr. Ambedkar's assertion amounts to.

Dr. Ambedkar seems to imagine that the cultivator alone works on his field. The fact is that other members of his family including his wife and often his children share his labours on the field. The Baroda committee expects the cultivator's family to work on the field as is obvious from the words "a piece of land necessary to *keep fully engaged*.....one family". The disproportion between the human factor and the unit or units of land arises when the family is not kept "fully engaged", and this disproportion is at the root of the problem of small holdings. Dr. Ambedkar, however, would, probably, advise the culivator to view his family as a "labour corps", and if he cannot economically employ them on his small field, to send his wife to some town to serve as a nurse in a European family, and his male children to some Gymkhana to earn their living as tennis boys—an advice which the "economic man" would, but the Indian cultivator would never, accept.

The situation is plain. We have families in possession of one or more small pieces of land which can neither keep them fully engaged nor support them. Even if it were desirable, the families cannot be so divided as to suit the small holdings. Therefore, either the holdings have to be consolidated and enlarged, or human brain and labour allowed to be wasted. Dr. Ambedkar would, perhaps, prefer the latter course; for, he believes that capital is inadequate and that if the holdings were enlarged, the disproportion between land and capital would increase. One cannot be confident whether others would

* The Italics are ours.

concur with him, and would not prefer the adjustment of the proportion between the human factor and land even at the cost of increased disproportion between land and capital.

Let us, further, examine the position of Dr. Ambedkar when he urges want of capital as one reason why the small holdings ought rather to be diminished in size than enlarged. Dr. Ambedkar considers the case of Indian cultivators as a whole, and having arrived at a general conclusion, descends to small holdings only to apply the same without modifications. This application may, in many cases, turn out to be as funny as the story of the clever mathematician who took different depths of water in a river, arrived at an average depth of 4ft. and declared that any human being of ordinary height could safely cross the river which was, as a matter of fact, 7 ft. deep in the middle. On the other hand, the general inadequacy of capital is an argument for and not against the consolidation or enlargement of holdings. Even the holders of small pieces of land need full equipment though the same may have to remain unutilised for a large part of the year. If two small holdings were combined, the aggregate capital on both is likely to do much more work than it could do when the holdings were separate. Thus the consolidation or enlargement of small holdings would practically increase capital by enabling the same amount of capital to do more work.

Again, Dr. Ambedkar has to complain about the present surplus of labour and the great dependence of the country on agriculture. Undoubtedly, the industrial regeneration of the country is to be devoutly wished and worked for. But we should not, therefore, be blind to the shortage of labour experienced in Bombay and other centres of industry. To say, in the face of this shortage of labour, that the law of inheritance is invoked "simply because it is profitable" is to make a statement which has little relation to facts. It may, perhaps, be contended that the wages of labour are low, and the cultivator may not find it profitable to go to centres of industry, and that that may be the reason why he does not go. If profits are to be calculated in money—in so for as it satisfies the needs of human beings—then the contention cannot stand. To take an instance, the Ratnagiri peasant does find it profitable to go to Bombay and work in mills. He saves some money which he remits to the members of his family. And yet, the monsoon generally sees him back in his native village, often at his plough. The plough actually pays him less than the Bombay mill to which he has

ultimately to turn for his economic salvation. There is room for argument that the cultivator may find compensation in the climate, surroundings &c. of his native village. The peasant mill-hand, however, hardly thinks very highly of his village when living in Bombay which has many attractions for him. The family tie which is very strong, is the chief, perhaps the only cause of his return home, every year.

Without implying that the love of the family or home as such is to be deprecated, it must be said that the present state of affairs is unsatisfactory. It adversely affects the agriculture and industry of the country as also the individual interests of workmen. To stick to the Ratnagiri District for illustration, it is felt that mill-hand peasants of the District who cultivate land, do not do their work as industriously and carefully as they did when they devoted themselves solely to the cultivation of land. The mill-industry in Bombay suffers on account of unsteady, untrained, and inefficient labour. If labour were permanent, it could be trained and its efficiency increased. With the increase of efficiency the remuneration for an individual could be increased and even the hours of work reduced. It would be possible for the employers and the employees to feel interest in one another, and there would be clear gain on all sides.

There are many difficulties in the organisation of labour and the creation of an efficient labour force. One of them is the interest that the mill or factory hand has in land. It is, therefore, desirable that persons should be cut off from land when that land cannot support them and their families. There would, then, be greater probability of the migration of peasants with their families–wife, children, and perhaps parents and brothers also—to centres of industry or to any other place where they can live pretty well. Of course, industries on small scale capable of being economically run in small towns and villages would be a great boon. But if they do not exist at present, we have to make the most of the circumstances as they are.

The problem of consolidation and enlargement of small holdings bristles with difficulties which must, undoubtedly, be reckoned with. The solution, however, cannot be left to the industrialization of India. The problem must be faced with boldness and ingenuity. The suggestion of the Baroda Committee as to the registration of an economic holding in the name of one person only without otherwise interfering with the law of inheritance as also the permissive measure of the

Hon. Mr. Keatinge may be tried separately in some of the Talukas or Districts abounding in small holdings. It is no use sitting with folded hands. We must feel the way, and steadily proceed towards the goal—the substitution of economic for uneconomic holdings.

D. A. SHAH.

WANTED A "HIGH STANDARD OF LIVING"

In the June number of this Journal, Mr. Godbole raised and discussed the question whether the raising of the 'Standard of living' is conducive to human happiness or not. At the outset, the writer seems to have entirely overlooked the distinction between the terms "Standard of life" and "Standard of living" and thus confused the issues. Although the former expression is intended to convey the general mental and moral standard of people, it is loosely applied as synonymous with the latter. Hence the confusion. The expression 'Standard of Life' is meant to denote all that is characteristic of human beings, the character, culture, refinement, etc. and such standards are high or low according as the people are civilised or not, using the word in its broadest and altruistic and not in its narrow and egoistic sense. In short, its meaning is expressed in the familiar phrase "plain living and high thinking." This is said to be the end and aim of right thinking individnals and societies.

But the modern conditions of the world are such that there is always a struggle for the so called 'plain living' due to the disintegration of the society and the unfair and even unjust distribution of wealth and the term "standard of living" is used by economists to indicate the basis for such plain living or normal human existence. Unfortunately in this world, there is a certain class of people who cannot maintain themselves without outside help, such as the blind, paupers, cripples, etc.; and there is quite the same number, if not more, whose incomes do not suffice to keep them above want, and who are, therefore, unable to lead a healthy existence, but who do not depend upon outside help. There are others who have or earn sufficient to live upon, but who can not afford for luxuries. Lastly there are those who have enough and to spare and who go in for all kinds of luxuries. It is mainly to indicate this difference in living that the term standard of living is used.

The question then arises what constitutes the standard of living i. e. the standard necessary for a decent, wholesome or comfortable living. To answer it is no easy task. Enquiry into this subject has often led people to make *practical* investigations into the conditions of living of the different classes of society. These conditions are never the same and they vary in different classes, in different countries and in different places in the same country. For instance, the cost of decent living for an individual, say, in the heart of London would be £ 15 a month while it may be £ 5 only in Madras and it may be £ 10 in Manchester. It may even vary from time to time owing to increase in the price of food stuffs, clothing etc.. Before the war the cost of living was much cheaper than now owing to increase of prices all through.

One great economic fact observable in investigations about 'standard of living' is, that it is usually studied with reference to families. The reason, as pointed out by economists, is that there are some members in a family depending upon the wage-earner for maintenance such as children and old parents, and consequently they are included when calculating the standard of living, and for purposes of investigation a family of 5 members (husband, wife and 3 children) is taken as a unit. It is somewhat interesting to go into the details of these investigations as they are carried on largely in European countries almost to a scientific precision. Unfortunately in India statistics on this matter are meagre and no efforts are bestowed on the study of this important practical problem by the leading economists in this country. To give an idea of the work done in the field by westerners, I give below a few instances. In 1909, R. C. Chapin published interesting investigations he had made regarding the budgets of 400 working class families in New York city. He had made the investigations as the secretary of a Committee on 'Standard of living' of the New York State Conference of Charities and Correction. Later in 1911, 1913 and 1914, Messrs Streightoff, Nearing and Hollander made their own investigations for maintaining a decent standard of living for an average family of 5, while Messrs. Money, Mallock and Rowntree paid a good deal of attention to this subject in the United Kingdom.

In these investigations it was found that there are two types of standards of living, one the minimum or the bare standard and the other the higher or the decent standard. It is with regard to this higher

standard of living that a good deal of criticism has been passed by Mr. Godbole. He classifies the effects of a high standard of living under two heads, the economic, the ethical and sociological, and it is here that he creates a confusion. I agree so far with the writer when he says on page 120, that " to those who are below the line of even the ascetic standard, an increase in the number of wants is a positive boon and " the leap from the ascetic to the normal standard would also be equally beneficial ". But when he discusses the much higher Standard viz the luxurious standard, he becomes a pessimist and imagines all sorts of dangers besetting it. According to him "it produces vanity, mad craving for wealth regarded as an end in itself. It leads to despise his poorer fellow beings and to subserve all peoples' interests to his own". It might most pertinently be asked here, how on earth could one get to this state of mind when he raises himself to this standard of living and not to any other standard, the man remaining constant. This wrong notion is due to the confusion pointed out at the outset between the terms 'standard of life' and "standard of living". When once it is granted that a raising of standard from low to high is beneficial, it stands to common sense that a raising from high to higher must be equally beneficial. Besides, his argument is economically fallacious. Assuming for the sake of argument that the man lives a luxurious life, taking it to mean a mad hunt after new wants and the means of gratifying them, the writer is judging the individual from the consumer's point of view and not that of the producer. A thousand men may be employed in producing an article of luxury—in these days it is not possible to say which is luxury and which is necessity–for the consumption of a few millionaires. Still the fact that a thounsand men are in return fed, clothed and housed by the production of this article of luxury is alone a sufficient argument for the adoption of the luxurious standard of living by the few. If indeed it is proved that the man consumes more luxuries than his labour or fortune enabled him to command, then alone the consumption of luxuries is disadvantageous to him. This equally applies even to the necessaries of life. "The mischief therefore does not consist in the *species* of the articles consumed, but in the *excess of their value* over the means of purchasing them possessed by the consumer. This, however, is a fault which ought always to be left to be corrected by the *self-interest* of those concerned."

There is therefore nothing wrong in the allurements of this luxurious standard of life. As Henry George points out in his book

" Progress and Poverty " p. 314 " Man is not a machine that will do so much and no more; he is not an animal whose powers may reach thus far and no further. It is mind, not muscle, which is the great agent of production.....To increase the comforts, and leisure, and independence of the masses is to increase their intelligence; it is to bring the brain to the aid of the hand; it is to engage in the common work of life the faculty which measures the animalcule and traces the orbits of the stars ! "

It is one of the most mischievous doctrines that has gained currency in this land, the " tale of the canker of luxury." To read Sir Rabindranath Tagore is not to become him, to acquire his mental powers, or to lead his life. One must rise to his standard of intelligence and morality to become him. It is no use decrying high standard of living and the desire for increased wants, because Sir Tagore has sounded a note of warning against it. Equally have many people supported it. To quote again Henry George (p. 330), " Want might be banished, but desire would remain. Man is the unsatisfied animal. He has but begun to explore, and the universe lies before him. Each step he takes opens new vistas and kindles new desires. He is the constructive animal; he builds, he improves, he invents and puts together, and the greater the thing he does, the greater the thing he wants to do. He is more than an animal. Whatever be the intelligence that breathes through nature, it is in that likeness that man is made. The steamship driven by her throbbing engines through the sea, is in kind, though not in degree as much a creation as the whale that swims beneath. The telescope and the microscope, what are they but added eyes, which man has made for himself; the soft webs and fair colours in which our women array themselves, do they not answer to the plumage that nature gives the bird ? Man must be doing something, for in him throbs the creative impulse; the mere basker in the sunshine is not a natural, but an abnormal man."

It must be apparent to every man, and more so to an economist, that production whether of necessaries or of luxuries is only a means to an end and not an end in itself. No one produces an article of necessity or of luxury merely for its own sake, but only that it may be used by somebody else and that use may bring him something in return to buy his own requirements. J. R. Mculloch in his Principles of Political Economy (p.208) makes an eloquent plea for the production and consumption of luxuries which will be found an interesting reading and

I, therefore, quote it in full. He says, "It was long a prevalent opinion among moralists, that the labour bestowed on the production of luxuries, and consequently their consumption, was unproductive and disadvantageous. If a man wished to get rich, his object, it was said, ought not to be to increase his fortune, but to lessen his wants. *Si quem volueris esse divitem, non est quod angeas divitias sed minuas cupiditates.* Had these opinions ever obtained any considerable influence, they would have formed an insuperable obstacle to all improvement. Those who are contented with the situation in which they are placed, can have no motive to induce them to aspire at any thing better. And hence it is to the absence of this feeling of contentment, and the existence of that which is directly opposed to it,—to the desire to rise in the world, to improve our condition, and to obtain a constantly increasing command over the conveniences and luxuries of life, that Society is indebted for every improvement. No progress can be made in civilisation, in any country until this desire has been excited; and the more powerful and urgent it becomes, the more rapid will be the accumulation of wealth, and the more prosperous will every individual become".

T. K. SWAMINATHAN.

Increase in prices of food grains and pulses in 1918. A Government Press Note on the prices of food grains states :—

"An examination of the fortnightly returns of prices in the different provinces in India shows that the wholesale **prices of food grains and pulses** at the end of December, 1918, increased by 52 per cent. (unweighted average), as compared with the corresponding date of the previous year. The weighted average shows a rise of 60 per cent. The price of rice advanced by 63 per cent. and that of wheat by 38 per cent. The increase in the price of rice in Bengal was 63 per cent., in Burma 40 per cent., and in Madras 54 per cent. Among other minor provinces, the noticeable increases in rice prices were 85 per cent. in the Central Provinces and Berar, and 83 per cent. in Bihar and Orissa. In the case of wheat, the rise was 30 per cent. in the Punjab, 37 per cent. in the United Provinces and 53 per cent. in the Central Provinces and Berar. Wheat also rose 58 per cent. in Burma and 51 per cent. in the Bombay Presidency. The price of barley in India showed a rise of 42 per cent. (unweighted average). The weighted average shows a rise of 62 per cent. The increase of 73 per cent. in barley prices in the United Provinces is noticeable. Jawar prices advanced by 70 per cent. In the Bombay Presidency the price of this article of consumption showed the highest rise, *viz.*, 109 per cent. Bajra rose 92 per cent. in India, Delhi showing an increase of 137 per cent. and the Bombay Presidency 118 per cent. Prices of maize increased 48 per cent. (unweighted average). The weighted average shows a rise of 71 per cent. Prices of gram and arhardāl were 48 per cent. and 57 per cent. respectively above the level of 1917. The increase in the price of arhardàl in Delhi by 145 per cent. is striking. Prices of ghi advanced by 24 per cent. and raw sugar (gur) by 25 per cent. On the other hand, there was a fall of 15 per cent. in the average price of salt in India, the United Provinces showing a decrease of 38 per cent. and Bihar and Orissa 35 per cent. Compared with a fortnight ago, prices of rice in India at the end of December, 1918, showed a fall of 3 per cent., but wheat and barley increased by 2 per cent. each. Prices of jawar rose 9 per cent., maize 6 per cent., arhardál 2 per cent. and bajra 1 per cent. Gram prices showed no fluctuation. Prices of ghi and gur showed a rise of 1 per cent. each, but salt prices declined by 3 per cent."

Use of Paddy Husk in Glass Manufacture:—

The experiments conducted by Mr. A. P. Morris, Principal, Government Engineering school, Burma, indicate that :—

(i) Paddy husk can be used to develop sufficient heat for glass manufacture. Measurements in my kiln gave between 1,100° and 1,200° C.

(ii) Paddy husk yields as a bye-product silica sufficiently pure to be suitable for the manufacture of colourless glass. Further the silica is in a finely divided state which makes its conversion into glass particularly easy.

(iii) The other ingredients for a lime-soda glass are available locally and the glass obtained is of high fusibility and good quality.

(iv) With the husk fuel at such a low price and the silica in a finely divided form as a bye-product the manufacture of glass would be particularly cheap.

Income Tax, In 1917–18 the Bombay city contributed a gross total of Rs. 1,56,50,120 of Income Tax and after deducting refunds of Rs. 1,61,682, there remained the net total of Rs. 1,54,88,438. The grand net total for the whole of the Bombay Presidency, including Bombay city and Sind, was Rs. 2,05,49,259.

Rice crop in 1918–19. The figures published by the Department of Statistics are for provinces which contain 99 p. c. of the total area under rice in British India. The total area reported is 75,864,000 acres as compared with 80,141,000 acres of the revised final area of last year. The decrease is of 5%, the total yield is estimated at 23,822,000 tons of cleaned rice as against 36,249,000 tons in the finally revised estimate of last year or a decrease of 34 p. c. This is mainly due to scanty rains. The average yield per acre works out to 703 lbs as against 1013 lbs in 1917–18. In addition to above, rice is grown in certain other tracts in British India. The average area so grown for the five years ending 1916–17 has been some 870,000 acres with the estimated yield of 273,000 tons. This is not included in the above figures.

The following Tables about Income

TABLE

	Salaries.	†Company Profits.	Securites.	Other Sources.	Total Income Tax.
1915–16.					
Number of Assessees.	1,08,375	8,296	...	2,25,870	3,42,541
	Rs.	Rs.	Rs.	Rs.	Rs.
Collections ...	79,49,119	41,11,723	13,88,440	1,70,13,955	3,04,63,283
Perecntage of Total Collection ...	26%	13%	5%	56%	100%
Assessment per Assessee ...	79	500	...	77	89
				Equivalent in Sterling	£ 2,030,885
1916–17.	...	...	...	...	£ 3,772,967
1917–18.	...	...	...	Super-Tax	
(Revised estimates)...	...	...	...	£ 1,258,926	£ 4,816,866
1918–19 (budget) ...	...	...	...	£ 1,343,800	£ 4,989,400*

* Doubling the Income-Tax on all Incomes above

TABLE

† Com

	Banking.	Cotton Mills.	Insurance.	Jute.	Coal Mines.
1916–17.					
Number of Companies ...	459	197	140	44	153
Paid up Capital Rs ...	8,68,59,000	16,85,13,000	50,48,000	8,69,14,000	6,12,03,000
1913–14.					
Number of Company Assessees ...	597	155	118	34	66
Collection Rs ...	4,27,518	6,17,102	1,28,811	5,25,566	2,04,616
Percentage on Company Collections ...	10%	15%	3%	12%	5%
Assessment per Assessee	Rs 700	4,000	1,000	15,450	3,000

Tax are Compiled from Available Statistics.

•I.

Incomes between Rs. 1,000 and 2,000.	Incomes between Rs. 2,000 and 5,000.	Incomes between Rs. 5,000 and 10,000.	Incomes between Rs. 10,000 and 30,000.	Incomes above Rs. 30,000.	Total of Incomes above Rs. 5,000.
2,20,793 (65%)	82,396 (24%)	24,308 (7%)	11,259 (3%)	2,361 (7%)	37,928 (11%)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
58,91,785	64,90,249	43,37,510	45,73,017	77,27,660	1,66,38,187
19%	21%	15%	16%	26%	55%
27	81	181	415	3,360	430
1,23,82,034					
£ 825,069*					
Increased rates for Incomes above Rs. 5,000 under the Act of 1916.					
		Total of Super-Income and Taxes.	£ 6,075,800		
			£ 6,333,200		

Rs. 5,000 would bring 4 Millions £ more in 1919-20.

II.

panies.

Other Mining.	Railways.	Other Companies.	Total of Companies 1913-14.	Total Companies in 1915-16.
61	54	...	...	...
5,39,86,000	12,05,63,000	...	...	...
16	25	7,729	8,740	8,296
3,24,133	4,78,728	...	40,08,542	41,11,723
8%	11%	36%	100%	100%
20,000	19,100	...	460	500

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on 05 April, 2016